

Varsity Magazine Supplement

Fourth Edition

Dupl
528.4



Published By
The Students Administrative Council
Toronto Canada



BANK OF MONTREAL

Established over 100 Years (1817-1918)

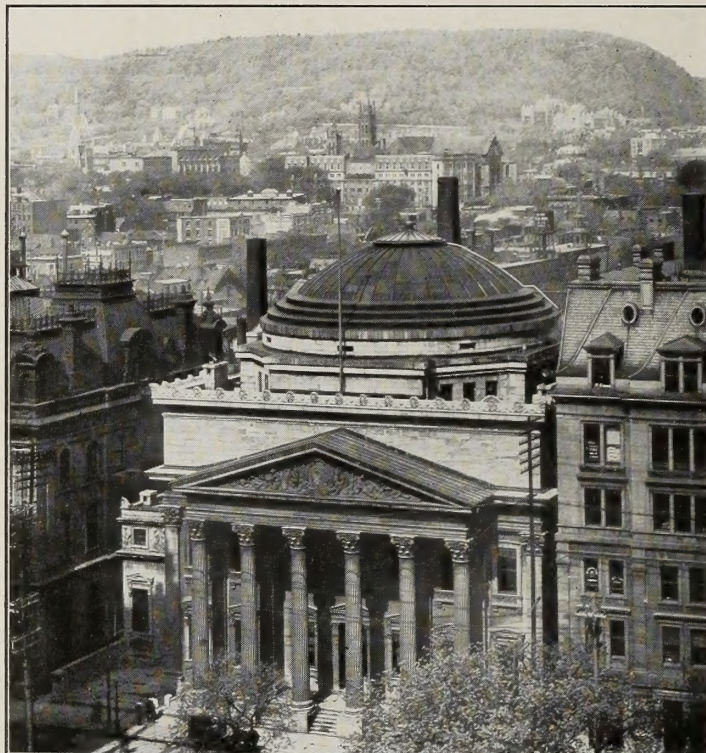
Capital Paid up	-	\$16,000,000	Rest	-	\$16,000,000
Undivided Profits	-	\$1,901,613	Total Assets		\$558,413,546

BOARD OF DIRECTORS:

SIR VINCENT MEREDITH, Bart., President
SIR CHARLES GORDON, G.B.E., Vice-President

R. B. Angus, Esq.	Lord Shaughnessy, K.C.V.O.	C. R. Hosmer, Esq.
H. R. Drummond, Esq.	D. Forbes Angus, Esq.	Wm. McMaster, Esq.
Major Herbert Molson, M.C.		Harold Kennedy, Esq.
H. W. Beauchlerk, Esq.		G. B. Fraser, Esq.
Colonel Henry Cockshutt		J. H. Ashdown, Esq.

General Manager—SIR FREDERICK WILLIAMS-TAYLOR



GREAT BRITAIN
London
47 Threadneedle Street
E.C.
G. C. Cassels, Manager

London Sub-Agencies
9 Waterloo Place
Pall Mall, S.W.
Trafalgar Square, S.W.

UNITED STATES

New York
R. Y. Hebden
W. A. Bog
A. T. Smith
Agents
64 Wall Street

Chicago
San Francisco
Auxiliary -
British American
Bank
Spokane

MEXICO
Mexico, D.F.

Head Office: MONTREAL

The Bank has 265 Branches in Canada, Newfoundland, United States, Mexico and at London, England, with Correspondents in Allied and Neutral countries, offering exceptional facilities in all departments of General and Foreign Banking business.

FOREIGN AGENTS

PARIS	-	-	-	-	-	Credit Lyonnais	AUSTRALIA & NEW ZEALAND	-	Union Bank of Australia
PARIS	-	-	-	-	-	Comptoir National d'Escompte de Paris			
PARIS	-	-	-	-	-	Credit Commercial de France			
INDIA, CHINA & JAPAN	-	-	-	-	-	Chartered Bank of India, Australia and China			
INDIA, CHINA & JAPAN	-	-	-	-	-	Hong Kong and Shanghai Banking Corporation			
AUSTRALIA & NEW ZEALAND	-	-	-	-	-	Bank of New South Wales			
AUSTRALIA & NEW ZEALAND	-	-	-	-	-	Queensland National Bank			
							SOUTH AMERICA		
							ARGENTINE REPUBLIC	-	London and River Plate Bank, Ltd.
							BOLIVIA	-	W. R. Grace & Company
							BRAZIL	-	London & Brazilian Bank, Ltd.
							BRITISH GUIANA	-	Colonial Bank
							CHILI	-	W. R. Grace & Company
							PERU	-	W. R. Grace & Company

BANKING SERVICE

With branches in every important city and town in Canada as well as in Great Britain, the United States, Newfoundland and Mexico, this bank is in the position to afford a banking service that is second to none.

Capital
\$15,000,000



Reserve
Fund
\$13,500,000

HEAD OFFICE, TORONTO

THE CANADIAN BANK OF COMMERCE

Sir Edmund Walker, C.V.O., LL D., D.C.L., President

Sir John Aird, Gen. Mgr.

H. V. F. Jones, Ass't Gen. Mgr.

ESTABLISHED 1867

THE DOMINION BANK

HEAD OFFICE, TORONTO

ESTABLISHED 1871

Capital \$6,000,000.00

Reserve Fund \$7,000,000.00

Board of Directors

SIR EDMUND B. OSLER	-	-	President
W. D. MATTHEWS	-	-	Vice-President
A. W. AUSTIN			H. W. HUTCHINSON
JAMES CARRUTHERS			R. S. McLAUGHLIN
R. J. CHRISTIE			SIR AUGUSTUS M. NANTON
SIR JOHN C. EATON			W. W. NEAR
E. W. HAMBER			A. T. REID
H. H. WILLIAMS			

27 Branches in Toronto

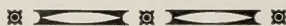
C. A. Bogert, General Manager

ESTABLISHED 1873

THE STANDARD BANK OF CANADA

Head Office - 15 KING ST. WEST, TORONTO

General Manager	-	-	-	C. H. EASSON
Asst. General Manager	-	-	-	J. S. LOUDON



A GENERAL BANKING BUSINESS TRANSACTED

130 Branches throughout the Dominion

A SAVINGS DEPARTMENT AT EVERY BRANCH

NORTHERN ONTARIO

NORTHERN ONTARIO is an immense forest-robed land, stretching from the Province of Quebec on the east to Manitoba on the west, and extending north for 770 miles from Old Ontario to Hudson Bay, an area of 333,000 square miles, or 208,000 square miles larger than the British Isles.

Its climate is similar to that of Manitoba and its soil is as rich. There are from sixteen to twenty million acres of arable land, with only a handful of people, say 250,000 making up its population. Its forest wealth is very great, its mineral wealth alluring, and its volume of water power grand, for there are countless lakes, lakelets and rivers large and small. Game and fish abound, making it the sportsman's delight. Already there are thousands of miles of colonization roads and steam railways spreading like a spider's web over a huge part of that vast new land. Villages, towns and cities have arisen with a wonderful modern equipment. Northern Ontario calls not for the weak and careless, but for the hardy, resolute, self-sacrificing pioneer. Some day it will be the home of millions and in the teeth of frost and fire and all other natural obstacles as in the Prairie, it will, like Ontario to the south, blossom as the rose.

The following features—crops, timber and minerals, tell in brief detail what the new land is and what it has done.

CROPS

The different kinds of crops grown in Northern Ontario are cereals, legumes or hay crops, roots and fruits. If regard be paid to proper variety and right time to seeding, many kinds of grains do well. Here the beginner should get information from older settlers or from the local representative of the Department of Agriculture. Late maturing grains may be sown for hay. Corn cannot be profitably grown but in certain parts. All kinds of clover have excellent growth, and large returns of various nutritious hay are got. Clover and timothy, with exceptional quality and vitality of seed, are profitably grown practically all over the agricultural areas. The right varieties of alfalfa give very good results in many parts. Avoid southern grown United States seed, and use seed of Grimm, Ontario Variegated or of the Russian varieties. Alfalfa will not be so much missed where red clover and alsike grow luxuriantly. The roots and vegetables of Northern Ontario are not excelled in abundance and growth by any part of the Province. Potatoes show great yields and mangels and turnips do well. An early variety of potatoes should be planted, particularly in the newer areas: for the spring and early fall frosts injure the crops of late maturity; whereas in the older parts, pretty well cleared of timber, summer frosts are gradually going away and the risk of hurt is less. Vegetables of almost any kind give excellent returns. Apples are suitable only along the north shore of the Great Lakes and around larger inland lakes, but crabapples do well in a wider range. The beginner should make judicious inquiry as to the growing of fruit, strawberries, raspberries, gooseberries, currants, etc., practically all kinds of small bush fruits are grown successfully. Many small fruits such as black currant, blueberries, strawberries, raspberries, are growing wild and can be gathered and preserved for household use.

TIMBER

The timber of the great clay belt of Northern Ontario is principally spruce, poplar, balm of gilead, balsam, with occasional groves of jack pine. Red and white pine are seldom found except on the southern border. The timber is chiefly valuable as pulp, although quantities suitable for lumber are to be found where the land is high. Spruce up to a diameter of 20 ins. is not uncommon. Balm of gilead and poplar are abundant on the high lands and make valuable lumber. Much of the spruce is of small dimensions, average from 4 to 10 inches in diameter. The pulpwood alone of Northern Ontario is a grand asset and a great opportunity for investment. Along the line of the National Transcontinental Railway there are about 300 million cords.

MINERALS

The total value of the mineral output of Ontario is \$57,856,375 for 1915, as against \$46,295,959 for 1914. This is an increase of \$11,560,416 of which \$10,588,756 represents the increase in valuation put upon the nickel and copper contents of the Sudbury mattes. But even on the old low basis of valuation the increase is \$684,129.

Gold exhibits a large advance in 1915 to be credited mainly to the mines of Porcupine, but offset to some extent by a decrease in silver production, its output, however, being 23,730,839 ounces. In gold production Ontario stands first among the Provinces. As high as 411,588 ounces of gold, worth \$8,501,391, were produced in 1915 as compared with 268,942 ounces worth \$5,529,767 in 1914, an increase of over 53 per cent.

The demand for nickel and copper for munition purposes has been abnormally great, and the mines have been worked to their utmost capacity.

LAND SETTLEMENT SCHEME FOR RETURNED SOLDIERS

Particulars relating to the Ontario Government Lands Settlement Scheme for Returned Soldiers and Sailors may be had by applying to Lieutenant-Colonel Robert Innes, Parliament Buildings, Toronto.

For information *re* the vocational re-education of returned soldiers apply to W. W. Nichol, Vocation Officer for Ontario, 116 College Street, Toronto.

For free literature descriptive of this great country write

H. A. MACDONELL,

Director of Colonization, Parliament Buildings, Toronto, Ontario

G. H. FERGUSON,

Minister of Lands, Forests and Mines.



HAMS & BACON

MORE THAN FORTY YEARS AGO

the **Maple Leaf** was selected as a brand to be emblematic of our best. The choice was a better one than we knew. Few then could have foreseen that so early in Canada's history the **Maple Leaf** would be recognized by an admiring world as an emblem of honor, patriotism, and courage, as exemplified by the glorious deeds of Canada's soldiers on the fields of battle. Meaning more than ever now, we strive to live up to its greater eminence. That is why **Maple Leaf Brand Breakfast Bacon** and **Hams** must represent **Perfection** before being worthy to bear the emblem under which they are offered to you. They are subject to a rigidly observed standard of manufacture in which is incorporated all the experience of many years, all the science of curing and preparation. The terms Mild, Delicious, Appetizing, are inadequate to convey a true impression of their goodness, but your palate will do that. Give it the opportunity the next time you buy **Ham** or **Bacon**,— Just ask for **Gunns Maple Leaf Brand**.

Gunns

GUNNS LIMITED

WEST TORONTO

VARSITY · MAGAZINE · SUPPLEMENT



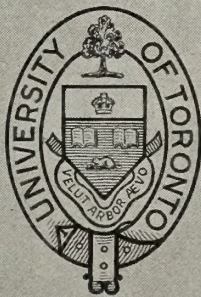


HIS MAJESTY KING GEORGE V.

The Varsity Magazine Supplement

God rest you happy, gentlemen,
Who laid your good lives down,
Who took the khaki and the gun
Instead of cap and gown.

Winitred Letts.



*Published by
The Students Administrative Council
University of Toronto
1918*



SIR WILLIAM PETERSON AND OFFICERS OF 2ND UNIVERSITIES COMPANY, P.P.C.L.I.



Contents

	PAGE
Inside Cover.....	5
His Majesty King George V.....	6
Title Page.....	7
Officers of 2nd Universities Company P.P.C.L.I.....	8
Contents Page.....	9
Editor's Preface.....	10
A Retrospect.....	11
Peace and Retribution.....	12
Index to Honour Roll.....	13
University of Toronto Honour Roll.....	17
University of Toronto Military Honours.....	73
Future Relations between United States and Canada.....	77
Universities of the United Kingdom and the War.....	78
University of Toronto Hospital Supply Association.....	80
University of Toronto Commencement Day, 1918.....	81
University of New Brunswick and the War.....	86
Canadian Universities and the War.....	87
War Work of Connaught and Antitoxin Laboratories, U. of T.....	94
University of Toronto Active Service Supplementary Roll.....	97
University of Bishop's College and the War.....	117
McGill University and the War.....	118
Laval University and the War.....	123
The Scholar in War.....	124
War Activities at Princeton University.....	126
Western University and the War.....	128
The Message of the Torch.....	128
University of Manitoba and the War.....	129
Canadian Officers' Training Corps, University of Toronto.....	130
University of Saskatchewan and the War.....	131
University of Toronto Overseas Training Company, C.O.T.C.....	132
War Work of University Women at Home.....	133
Acadia University and the War.....	134
University of Toronto, No. 4 General Hospital.....	135
From Vimy.....	136
Training Disabled Soldiers at University of Toronto.....	137
Re-establishment of Canadian Soldiers in Civil Life.....	140
Advertisements.....	141

Editor's Preface

THE Fourth VARSITY MAGAZINE SUPPLEMENT makes its appearance under happier auspices than its predecessors. The heavy cloud of war which hung over us for four long years has been dissolved and 'Varsity, in common with other Canadian Universities, turns from the destructive work of war to the constructive tasks of peace.

The present issue of the SUPPLEMENT does not profess to give an account of the war work of all our Canadian Universities, but it is sufficiently representative to indicate how costly the long struggle has been to them. In the Great War Canadian Universities have placed their loyalty and capacity for leadership beyond question. Patriotism has burned within their halls with a pure flame and they have been united by the sense of brotherhood and service in a noble cause. The great universities of the British Empire have always stood for freedom of thought and action and they have carried those ideals into the long struggle between Democracy and Autocracy and vindicated them by heroism and sacrifice. It has been estimated that from 15,000 to 20,000 graduates, undergraduates and prospective students of Canadian Universities enlisted for military service. These figures are only an indication of the heavy sacrifices our universities have made in order that justice and right might be triumphant, but one and all are proud and thankful that so many of their sons and daughters heard and responded to the call for service. The students of the University of Toronto take this opportunity of expressing to our sister universities our admiration and respect for their contribution to our common cause.

This Fourth Supplement is published by the Students Administrative Council of the University of Toronto as a humble tribute of pride and affection to those 5,400 members of our Alma Mater who have upheld her fair name and honour on many "a far-flung battle line".

The long Honour Roll shows that 604 of 'Varsity's sons will come no more in body to lecture room, campus or reunion, but their memory will linger long as a fragrant presence in the hearts of those who loved them, and their example will inspire those who follow them within these halls for generations to come. Realizing clearly the danger of the German menace to the world's free institutions they went clear-eyed into the struggle to fight as free men for Freedom. Their sentiments have been well expressed by a graduate, who himself gave up his life to the cause.

"For in the years to come it shall be told
How these laid down their lives, not for their homes,
Their orchards, fields and cities; They were driven
To slaughter by no tyrant's lust for power;
Of their free manhood's choice they crossed the sea
To save a stricken people from its foe.
They died for Justice—Justice owes them this:
That what they died for be not overthrown".

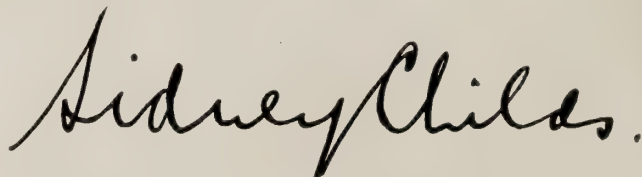
Writing in acknowledgment of the receipt of the Third Supplement, Sir Donald MacAlister, K.C.B., Principal and Vice-Chancellor of the University of Glasgow, says, "Its record made me proud to be an Honorary Graduate of the University of Toronto."

A few words are necessary in explanation of the contents of this issue. Chief place is given to the Honour Roll of those members of the University who have fallen in the struggle. Since the last issue the list has lengthened from 346 to 604. This section contains 530 photographs and 74 inscribed names of those whose photographs could not be obtained. The record is prefaced by an index for purposes of reference to the various lists and to provide a complete list. The Honour Roll was as complete as possible when its plates went to press but other deaths have since been reported. Four pages are given over to a record of Military Honours bestowed by the Allied Nations upon 'Varsity men for gallant conduct on many fields of action. This list is necessarily incomplete as the award of additional Honours is being constantly reported. As details come to hand many a brave deed worthy to rank with those of ancient story is revealed. A second photographic section of 15 pages inscribed "On Active Service. Supplementary Lists D.E.F." contains the photographs of 854 members of the University on service whose photographs have been received since the issue of the Third Supplement. This section is therefore supplementary to the photographic sections of the Second and Third Supplements containing 3,416 photographs of those on active service. Following the photographic section is another supplementary list containing the names of some 800 others on active service whose photographs could not be obtained. Together the Honour Roll and Active Service Rolls show approximately 5,400 enlistments from the University and its affiliated faculties.

The Students Administrative Council desires to acknowledge the generous support of graduates, undergraduates, and friends of the University in the war work carried on during the last four years. This generous support has enabled the Council to disburse \$31,344.23 amongst the British and Canadian Red Cross Societies, Patriotic and Relief Funds, University Overseas Hospital Supply Association and Training Units. The profits of the Fourth Supplement will be likewise contributed to patriotic, re-educational and repatriation work.

The editor desires to acknowledge his indebtedness to the contributors of articles, to Prof. G. O. Smith, Editor of the Roll of Service and his staff for supplying data for the compilation of lists, and to Mr. Collier C. Grant, Mr. J. B. Brodie, Miss P. Wade and Miss G. Paton of the Supplement Staff for their valuable assistance. On behalf of the students of the University the Students Council expresses sincere sympathy with the relatives of our fallen comrades and our thanks to those who have so kindly sent in photographs. The endeavour of the Editor has been to offer a student tribute to the achievements of 'Varsity men and women and a record of them for the inspiration of their fellow-students.

Copies of the 1916, 1917 and 1918 Supplements may be obtained from Mr. Collier C. Grant, VARSITY MAGAZINE SUPPLEMENT, University of Toronto.


Sidney Childs.

Editor.

OTTAWA, March 7, 1919.

A Retrospect

By SIR ROBERT FALCONER, K.C.M.G., M.A., LL.D., D.LITT.

President of the University of Toronto.

HAPPILY for us, in the present issue of the VARSITY MAGAZINE SUPPLEMENT we are able to take a retrospect of the work done during the war by Canada and the University of Toronto. Four years ago we were facing unprecedented experiences. Those of our generation knew nothing of war. In Canada we had almost come to believe that it had been removed forever from our horizon. It came upon us with terrific suddenness. We had to face it as best we might. We have endured much suffering. We have lost many of our best, but as we look back we may be very thankful for the way in which we have been led during these four years. One fact stands out clearly now that victory has come to us and our Canadians overseas have clothed themselves with glory until the very end—that our Canadian troops have been men of high intelligence and character. They submitted well to discipline, and they learned thoroughly the art of war. They were led splendidly by General Currie, his staff and the various commanders, each engagement seeming to be more glorious than the preceding one—St. Julien, Vimy, Amiens, Arras, Cambrai. It was a fitting close to a victorious career that they entered Mons and have won worthily even their final positions. This lesson of discipline learned so quickly must give encouragement to all who are thinking of the future. What we have to learn we will learn. What we have to endure we will endure. What we have to perform for the safety of our country we will perform. Men will appear when the occasion demands them. General Currie and his associates who have done these wonderful things were not widely known to the people of Canada when the war broke out, but when the occasion called for men Canada could produce the men both to lead and to fight. But the honour is not all to be paid to the combatant corps. They would be the first to admit that their success depended upon the Railway men, the Medical and other army services, and the Forestry Troops hidden away in distant parts of France and England. These forestry men cutting down trees and sawing logs in the stillness of French forests often fretted against the order that kept them back from the front, but the work of each con-

tributed to the success of the whole. May we practise alike co-operation in our re-construction period at home. Besides these there were the young Naval Officers from Canada who for four years carried out their unending task on the stormy seas and kept watch for the merchant marine. We must not overlook this merchant marine, not merely their high officers on the great Atlantic liners but the seamen, stewards, stokers of ships both great and small, even the nondescript tramp steamers that carried ammunition at seven knots across the seas tempting hourly on her slow passage the lurking sea reptile.

Not the least spectacular and important of all the episodes of the war were those enacted around the University of Toronto. Here were the first headquarters of the Royal Flying Corps in Canada. In our buildings the Royal Aeronautic School was conducted, and thousands of our finest young Canadians were trained for weeks on these grounds, making, we were told again and again, pilots and observers second to none in the new branch of military service.

The successive issues of "Varsity" have told of the doings of the University during the earlier years—how the first C.O.T.C. was formed; how we sent away Batteries of Artillery, and formed a permanent depot battery; how we raised, equipped and sent away the No. 4 Canadian General Hospital which has been recognised both in Salonica and in England as being among the very best of the medical units on active service. Later when the call came for the first Tank Battalion



SIR ROBERT FALCONER

one of the companies was quickly recruited by our Overseas Training Company. Along with these larger movements in the war there was a multitude of minor activities well organised and well directed which afforded opportunity to many willing hands and hearts to do their best or to give of their substance for the winning of the war. Altogether a record has been made to stir our hearts to thankfulness, and those of us who remain to greet our returning men when they come back shall always regard it as one of the highest privileges of our lives that we have been allowed to take even a small share in contributing to make the victory of our Canadians more complete.

Peace and Retribution

BY SIR EDMUND WALKER, C.V.O., LL.D., D.C.L.
Chairman of Board of Governors, University of Toronto.

THE war is over. During the long four years of its course we constantly thought things must be happening in Germany which the camouflage of lies sent to the outside world by the Germans assured us were not happening. Now we know that our judgment was not at fault, except that events moved less quickly than our hopes. All that we thought must follow from the external pressure brought to bear on Germany and from its internal conditions has followed. The Hun is at our feet and we are now to pass judgment on him. As far as can be seen the allies were never more clear as to their duty than they are at present and never more determined to carry it out, but we shall deceive ourselves if we do not recognize also that the German spy and German propaganda were never more active. We do not wish to hear mitigating circumstances regarding the German people during the war as compared with their rulers, even if there are such circumstances. We do not wish to hear personal anecdotes about the Emperor and his family and about their sufferings. We have a stern duty before us and throughout the coming ages men and women will judge this generation by the uprightness, courage and intelligence with which that duty is performed: in the words of Admiral Beatty, we must lengthen our memories and harden our hearts. We are not interested in the impression our terms of peace make upon the Germans of the present day, but we are greatly interested in the effect which they will produce upon the Germans of the future. I have long wished that a tribunal of judges selected from the decent nations of the world, allies or neutrals, should try by the established laws of evidence every offender against recognized law from the most insignificant looter of French chateaux to the Emperor himself, punishing the guilty by fines, imprisonment or execution. I should like to see the accounts of these trials translated into the leading languages of the world and placed in all important libraries, so that the Germans of the next generation cannot evade the facts, and must recognize the ethics of civilized nations and the barbarism of their own past. As to indemnities they must be made to pay to the last dollar possible and this will involve annual payments for many years to come. The troops of the allies should garrison the chief cities of Germany, Austria and Hungary, not merely because it is only

by such a course that the cash indemnities can be collected, but because without such objective evidence of their defeat we cannot hope to make the common people of the central empires understand what has happened.

At home we have to adjust ourselves to peace conditions and, apart from the tragic loss of life involved, it is one of the gravest objections to war that it should so upset our industries as to make this re-adjustment a problem almost more intricate than the war itself. Even before the soldiers

return in large numbers we must find new work for a multitude of men and women and this just at the beginning of winter. The re-arrangement of our industrial life on a peace basis will be very difficult but when accomplished there will be work for all and no one need doubt the future of Canada.

Meantime we of the University of Toronto have to think of our own future. What are we to do to commemorate our dead and the deeds of those who come back to us? Shall we erect a memorial as beautiful as art can devise and so instinct with meaning that no one in the coming ages can overlook its original purpose, while at the same time it renders some dignified service to University life? Shall we also appeal to the business men of the country as well as to the alumni of the University to supply funds for research not only in testimony of respect for the dead and for our returned heroes, but also in appreciation of the many

vital and most unexpected war services which the University has either directly rendered or has made possible. No intelligent business man and no politician will surely ever again doubt the great practical usefulness of our Universities. May the history of its work in the Great War be written so that our children's children may read it.

The work of the University, like everything else in Canada will naturally occupy a larger sphere in the future, and because of this the need for several new buildings presses upon us with a keener insistence and a louder demand for speedy action than ever before. In the past some of these needs have been time and again postponed waiting for a happier day to dawn, but longer delay is impossible if the University is to be ready fully to discharge its proper functions in the Canada we hope to see arise from the war.



SIR EDMUND WALKER



THE ANXIOUS DEAD.

O Guns, fall silent till the dead men hear
 Above their heads the legions pressing on!
 (These fought their fight in time of bitter fear
 And died not knowing how the day had gone).

O flashing muzzles, pause and let them see
 The coming dawn that streaks the sky afar!
 Then let your mighty chorus witness be
 To them, and Caesar, that we still make war.

Tell them, O Guns, that we have heard their call;
 That we have sworn and will not turn aside;
 That we will onward till we win or fall;
 That we will keep the faith for which they died.

Bid them be patient, and some day, anon,
 They shall feel earth enwrapt in silence deep—
 Shall greet in wonderment the quiet dawn,
 And in content may turn them to their sleep.

—LIEUT.-COL. JOHN McCRAE.

INDEX TO HONOUR ROLL

Index to Photographic Roll	page 14-16
LIST A.	
Lt. C. B. Adams—Capt. N. J. Yellowlees	page 17-41
LIST B.	
Lt. J. R. Adams—Lt. M. C. de B. Young	page 42-49
LIST C.	
Lt. J. O. Allison—Flt.-Lt. F. A. Wood	page 50-59
LIST D.	
Lt. E. M. Abendana—Sgt. A. W. Youell	page 60-69
SUPPLEMENTARY PRINTED LIST E.	
Capt. E. Z. Agar—R. G. Yule	page 70-72



PRO PATRIA MORI



INDEX TO PHOTOGRAPHIC HONOUR ROLL

	PAGE		PAGE		PAGE
Abendana, Eric Montague	60	Bryans, Fraser M.	19	Deacon, Lester Jerome	21
Adams, Coleman Boyd	17	Buchanan, Leo	19	de Fallot, Carl	21
Adams, Joseph Reginald	42	Buchanan, William Percy	43	Devlin, Henry Lyman	22
Aggett, William Harvey	42	Bull, Jeffrey Harper	51	Dickinson, Clesson John	61
Aiken, James Douglas	17	Burgess, Roswell Morris	51	Dickson, Douglas	22
Albright, Frederick Stanley	42	Burnham, Sidney Smith	51	Doherty, John Duncan	52
Allan, Hubert Gordon	17	Burns, Wm. James Gordon	61	Dow, Robert John Gunn	44
Allen, Henry Harold	17	Burrows, Bruce Hosmer Acton	43	Downie, Kenneth Brown	22
Allen, Samuel Hall	42	Butson, William George	43	Dowson, Hubert Samuel	22
Allen, Thomas Wm. Edward	17	Call, George Walter	19	Duff, George Clarke	22
Allison, John Oliver	50	Cameron, Oliver Lorne	61	Duff, James Robertson	22
Amsden, William George	50	Campbell, Andrew Russell	19	Dunbar, Alexander Mitchell	52
Anderson, Arthur Stuart	17	Campbell, Duncan F.	19	Duncan, George Gordon	22
Anderson, Charles Laidlaw	17	Campbell, John James	43	Duncan, Thomas Wilfrid	62
Anderson, Frederick John	42	Campbell, Robert A. Rankine	19	Dundas, George	62
Andrew, Wilfred Bissell	60	Campbell, Warren Knight	20	Dunstan, Guy Pierce	22
Andrews, Frederick Charles	17	Carlyle, William Mackay	20	Eardley Wilmott, F. L.	22
Andrews, Gordon Stewart	17	Cavers, James Pomeroy	61	Eaton, Jaffray	44
Annis, Wilbur F.	50	Cavill, Arthur Henry	43	Edmonds, Harold Sylvester	22
Archibald, Andrew W.	17	Chalmers, Adam Peden	20	Elliott, Claude Elsdon	62
Armstrong, Paul Lyndon	18	Chamberlain, James Russell	20	Ellis, Douglas Quirk	62
Arthurs, Thomas Andrew	60	Chapman, James Ronald	43	Ellis, Judson Harold	23
Baird, Alexander Watson	50	Chesnut, Arthur Willoughby	20	Ellis, Shirley Duncan	23
Ballachey, Frederick Allen	60	Chidley, Philip Frederick	20	Elmsley, Remy Basil	62
Ballachey, Panayote Percy	18	Clarke, Paul Brooks	43	Evans, William Laurance	23
Banbury, Frederick Everest	50	Clarkson, Maurice Arundel	20	Feeney, John Cecil	23
Banbury, Lloyd Ashley	50	Cleghorn, Allen C. Mackenzie	20	Fenton, Hubert Jefferson	23
Barber, Percy Louis	42	Clement, Carleton Main	43	Ferrier, Victor Archibald	23
Barker, Joseph Claude	50	Clipperton, William Henry	43	Fleming, George Rivers S.	23
Bassett, Joseph Alburn	18	Cockburn, Gordon Allan	51	Fleming, James Stephenson	23
Bastedo, Alfred Carbert	18	Cook, James Drue	61	Forin, Peter McLaren	52
Bates, William George	18	Cooper, Walter Henry	44	Forsyth, Gordon Oliver	62
Bauer, Wilfred Robert	60	Corbett, Charles C.	51	Foster, Franklin James	23
Beaton, Grover Cleveland	60	Cotton, Charles Penner	20	Fraser, Findlay David	23
Berry, George Herbert	42	Coutts, Walter Gordon	51	Fretwell, George Matthew	62
Bentley, David Benjamin	18	Cox, Ernest Herbert	51	Frogley, Harry William	24
Binns, Percy Vere	60	Crawford, James Philip	61	Froom, Minor Alwin	62
Bird, Montagu Herbert	60	Creasy, L. J.	44	Galloway, George Gordon	24
Bishop, William Allen	18	Cross, Russell Andrew	20	Galt, Gerald	24
Blake, Gerald Edward	18	Crow, Gordon Willson	21	Gane, Francis Egmont	24
Blatchford, Ewart Arthur	50	Crowe, Harry Lawrence	21	Gardner, Russell Thomas	44
Bole, James Gordon	50	Culham, Hubert Anthony	61	Garrow, John Ure	24
Bolté, Felix Oliver	50	Cullum, John Arthur	21	Garvie, James Alexander	62
Bonnycastle, Richard Henry	42	Cumming, Herbert W. M.	61	Gauld, Gordon Smith M.	44
Bothwell, George Edward	18	Cumpston, Basil Lancelot	21	Gear, John D.	62
Bowlby, George Herbert	42	Cunningham, James Nelson	44	Geggie, William Millar	44
Brewster, Harold Staples	18	Cuzner, Albert Edward	51	Gibson, Donald Patzki	52
Bricker, George Gilbert	60	Dalrymple, Oliver Gordon	21	Gibson, Franklin Reginald	52
Bright, Albert Edward	19	Dann, Eyre Frederick Morton	21	Gillespie, Paul Archibald	24
Britton, Russell Hubert	42	Darling, Oswald Gilbert	61	Gilmer, Ernest Richard	24
Brocklebank, Stanley Howson	60	Davidson, George Thorold	44	Glendinning, Stanley Hill	52
Brodie, Thomas George	19	Davidson, Gordon Parsons	21	Gliddon, George Clarence	24
Brown, Richard Austin	43	Davidson, Lawrence Lavell	44	Goldie, Thomas Leon	24
Brown, Walter Everard Alway	51	Davies, Ernest Langford	21	Goodeve, Stewart Marcon	45
Brown, Warren George	19	Davis, Gustavus Mitchell	52	Goodman, Ambrose Harold	52
Brown, William Gordon	51	Davis, Melville Allen	52	Goodyear, Hedley John	52
Bruce, George William	19	Dawson, Irvin Harrison	61	Gordon, Andrew Robertson	24



PRO PATRIA MORI

Gordon, Henry Andrew.....	63	Hosken, Ernest Dryden.....	45	Longworthy, Harold Lamont.....	30
Gordon, Henry Russell.....	25	Howard, Francis Carl.....	28	Loudon, Brian Melville.....	55
Gordon, John Alexander.....	53	Howard, John Turner.....	64	Lowe, James W.....	46
Gordon, Ralph Vyvian.....	63	Howes, David Edward.....	53	Luck, Sidney James.....	30
Gordon, Thomas Seton.....	25	Hoyles, Hugh Lewis.....	64	Lumsden, John Gordon.....	30
Gould, Walter Harvey R.....	53	Hughes, Chester.....	28	MacBeth, Robert Edward.....	66
Govenlock, Thomas E.....	25	Hughes, Hugh Lloyd.....	28	McBrady, Robert William.....	55
Graham, Thomas Fleck.....	63	Huston, William.....	64	McCarter, Douglas Sherwood.....	55
Grandy, Fred Norman.....	53	Hutton, Lincoln George.....	28	McComb, Thomas Allan.....	31
Grange, James Burness.....	53	Ingersoll, James Hamilton.....	28	McCrae, John.....	55
Grant, Oswald Wetherald.....	25	Ingles, George Leycester.....	28	McCurdy, Lorne Hastings.....	31
Grasett, Hugh A. McKay.....	25	Ireland, Richard Alfred.....	45	McCutcheon Hugh Edward.....	31
Gray, Angus Douglas.....	63	Irving, Thomas Craik.....	45	Macdonald, Alex. Gilmour.....	55
Gray, Robert M. McCheyne.....	63	Irwin, Oscar Thomas.....	28	Macdonald, Archibald Walter.....	30
Green, Ivan Tremayne.....	63	Jacks, Franklin Palmer.....	54	MacDowell, John William.....	55
Green, William Robert.....	25	Jackson, James Harvey.....	65	McEwen, George Arthur.....	66
Greenwood, Henry.....	25	Jamieson, Leonard F.....	54	McFadden, Aubrey Thomas.....	46
Gregory, William Henderson.....	25	Jamieson, Robert Crawford.....	28	McGavin, Peter Lydell.....	55
Grisdale, Arnold.....	63	Jarvis, Ralph Hunsworth.....	54	McGiffin, George Allan.....	66
Guilfoyle, John Vincent.....	53	Jensen, E. P.....	54	McGuire, Robert Blaney.....	31
Gunn, Murray Grant.....	53	Johnston, Eric Franklin.....	65	McKendrick, Gordon King.....	31
Hagerty, Daniel Galer.....	25	Johnston, Sinclair Beatty.....	45	Mackenzie, Alister Munro.....	30
Haig, David Elliot.....	25	Jolliffe, Reginald H. Manning.....	29	MacKenzie, Douglas Fraser.....	66
Haist, Orville Dwight.....	26	Jones, Herbert.....	45	Mackenzie, George L. Bissett.....	31
Hales, J. P.....	63	Jones, Trafford.....	29	McKenzie, Walter Wake.....	31
Hall, William Teasdale.....	26	Jourdan, Albert Caton.....	54	McKeough, William Stewart.....	32
Hames, Clifford Otto R.....	53	Kappele, Ernest Reece.....	45	McLaughlin, Arthur Edward.....	46
Hamilton, Douglas Kipp.....	63	Kay, Hugh Reid.....	45	MacLaurin, Howard James.....	31
Hamilton, Robert Gordon.....	26	Kean, Gordon Jackson.....	65	Maclean, Allan Pratt.....	55
Hanna, Harold Leander.....	63	Kedey, William Moses.....	29	McLean, Dugald Black.....	32
Hanna, William Neil.....	64	Kelly, Thomas Ewart.....	29	McLean, Donald Gordon.....	56
Harding, Henry Arthur.....	45	Kennedy, Henry Alex. Taylor.....	54	McLean, Gordon Davis.....	66
Harling, Thomas Leslie.....	26	Kennedy, Stuart.....	29	McLennan, Donald Murdoch.....	56
Harris, Howard Kilbourne.....	53	Keyes, Cleveland.....	65	Macleod, David Douglas.....	31
Harris, Webster Henry F.....	26	Keys, Lily Denton.....	65	McMurrich, John Dewar.....	66
Harrop, Charles Edward.....	26	King, Vernon.....	54	MacNevin, William Gordon.....	56
Hartney, James Cuthbert.....	26	Klotz, Herbert Norman.....	29	Macpherson, Charles Kenneth.....	46
Harvey, John Irvine.....	26	Knight, Arthur Gerald.....	29	MacPherson, Stuart MacD.....	31
Harvie, Norman John.....	26	Knox, John Henry.....	54	McVicker, Edgar Harold.....	32
Hately, John.....	26	Kylie, Edward Joseph.....	29	Machell, Maurice Irving.....	32
Hawkey, Roy Richard.....	45	Landels, Bertram Howard.....	29	Maguire, John Reginald.....	32
Hayes, Henry Stuart.....	27	Lang, Henry Drummond.....	54	Major, Henry Lawrence.....	32
Heighington, Geoffrey.....	64	Lang, Sidney Albert.....	65	Mallough, Ian Cameron.....	46
Heintzman, Thomas Herman.....	53	Langstaff, James Miles.....	29	Malone, Maurice Edward.....	32
Helliwell, Joseph Grant.....	27	Latornell, Arthur Joseph.....	46	Marshall, Aubrey Milton.....	32
Henderson, James.....	27	Lawless, Norman.....	30	Martin, Frederick J. Strange.....	56
Henderson, J. F.....	64	Lawrence, Henry.....	46	Marty, Ivan Bernard.....	32
Henderson, Maurice Russell.....	27	Lawton, Alfred Edward.....	30	Matheson, Gordon McMichael.....	66
Henry, Alfred Hall.....	64	Leach, Harold Oakley.....	54	May, George Geoffrey.....	32
Henry, Lewis Brock.....	27	Leary, Edgar John.....	65	Meek, John Freele.....	56
Hill, John Emerson.....	27	Lee, Harry Euland.....	30	Megan, Gerald James W.....	56
Hillis, Charles Russell.....	64	Leggo, Ayton Richie.....	30	Mercer, Malcolm Smith.....	33
Hodge, Henry Boyd.....	27	Leonard, Arthur Vincent.....	65	Meredith, John Redmond.....	33
Hodgson, John Eastwood.....	64	Leonard, John.....	55	Michell, Albert vonHolt.....	33
Holcroft, Herbert Spencer.....	27	Leslie, Gordon Franklin.....	46	Millyard, Reuben De'Lemme.....	66
Home, Robert.....	27	Leslie, William Brown.....	65	Mitchell, Richard Arthur.....	33
Hopkins, Frederick Holmes.....	27	Little, Neville Hall.....	65	Mitchener, John Roy.....	33
Horkins, Richard.....	28	Livingstone, Hugh D'Alton.....	55	Monkman, Herbert Stanley.....	33
Horner, Asa Milton.....	28	Lobb, Melville Elliot.....	46	Mooney, Charles W. Deeprose.....	66
Horton, Andrew Allison.....	64	Lockhart, William Eric.....	30	Morgan, Edward Clarence.....	33



PRO PATRIA MORI



Morris, Basil Menzies	33	Sanders, Edwin Francis	47	Trebilcock, John Archibald	59
Morrison, Donald Whitcombe	56	Schell, Malcolm Douglas	67	Tribble, John William	48
Morton, Francis Vivian	46	Scott, Charles Bevers	36	Trotter, Bernard Freeman	39
Moshier, Heber Havelock	56	Scott, Douglas Gordon	57	Turnbull, Reginald David	39
Moss, Charles Alexander	33	Scott, Frederick Gundy	36	Twidale, Elfric Ashby	39
Muir, Arthur Edward	33	Scott, George Beattie G.	57	Twohey, William Francis	59
Murray, Harold Gladstone	34	Scott, James Garnet	57	van Allen, Kenneth Marsden	39
Newcombe, John Carr	56	Scott, Walter Frederick	57	Vansittart, George Edward	39
Nicholson, Harry Reid	34	Scott, William George Stanley	47	Vickers, Thomas Newell	39
Norris, Armine Frank Gibson	66	Shannon, Percy Roy	68	Vogan, Stanley Maxwell	39
Northwood, Herbert Braid	56	Sharman, John Edward	48	Wain, George Elmer	49
Oldham, James Henry	34	Sharpe, Samuel Simpson	58	Walker, Joseph Tackaberry	59
Ormsby, John Antony	34	Shepley, Joseph Gore	68	Walker, Stanley Arthur	39
Owen, Harold Heber	34	Shier, Morley Roy	68	Wallace, Hugh Douglas M.	39
Palmer, Balfour Malcolm	57	Shier, Wesley George	37	Walsh, Frederick Wm.	40
Parke, George Reginald	34	Shipton, Joseph Cuthbert	37	Walter, Royland Allan	69
Parker, Arthur Allan	67	Simpson, Colin	37	Ward, Henry Glassford	59
Parrish, George Lewis Roberts	57	Simpson, Ernest Alroy	37	Warren, Ivan John	69
Paterson, Murray Hulme	34	Simpson, Joseph Donaldson	68	Watson, Charles Harold	59
Patten, Edgar William	47	Smith, Jeffery Filder	48	Watson, Hugh Jarman	49
Patterson, Charles Forrest	47	Smith, Robert Scott	58	Watts, Robert Edward	40
Patterson, Robert Douglas	47	Smith, Robert Wade	37	Wear, James Symington	40
Pawley, Norman Howard	57	Snow, Geoffrey Allan	48	Webb, Edward Alfred	40
Peacock, Thomas W. Parker	34	Snyder, Lorne	58	Weber, George Roy	49
Pearce, Gordon Mackenzie	34	Somerville, Kenneth Ian	68	Weir, Douglas	69
Pearson, Horace	34	Soper, Russell Wright	58	Welch, Thomas Baird	69
Penhale, Thomas W.	35	Souter, James Mitchell	37	Wells, Gerald Edwin	40
Pepler, Stanley James	35	Southam, Gordon Hamilton	37	West, Randolph H. Arnold	59
Peppiat, Frederick Charles	47	Sparling, Thomas Vincent	48	Wheelock, Charles Herbert	59
Perry, Cecil Victor	35	Stanley, James Arthur	68	White, Kenneth	49
Pfrimmer, Valentine Ralph	35	Steckley, H. B.	68	Whitside, James LeRoy	40
Pickering, Howard Vincent	47	Steele, W. Stanley	58	Wilkes, Maurice Fiskien	40
Platt, Henry Errol B.	35	Stewart, Charles Hilton	58	Wilkins, Reginald Princep	69
Poast, Roy Irvine	35	Stewart, John Howard	37	Wilkinson, Harold Reid	40
Potvin, James Edward	57	Stirrett, Ernest Zavitz	37	Willard, William Hartley	40
Preston, Harold Brant	67	Stokes, Clifford	58	Wiley, Chester Matthew	40
Primrose, Howard P.	35	Stoneman, John H. Adams	68	Williams, George Knox	41
Qua, Arthur Harper	35	Stratford, George Stacey	48	Williams, Mark Webber	49
Quail, Henry Charles	57	Strathy, Jeffrey McVicar	37	Williams, Philip Edward	69
Rae, Matthew	35	Street, Edmund Rochfort	48	Williams, Russell	41
Raley, William Elmsley	35	Stupart, Frederic Gustavus	38	Willison, William Taylor	41
Raney, Paul Hartley	47	Sutcliffe, Charles Elliott	38	Wilson, Arthur Patrick	59
Ratz, John Henry	57	Sutterby, Wm. Alex. Denison	58	Wilson, Harold Mackenzie	41
Réaume, John Stanley	67	Swinnerton, Aysceau F. R. W.	48	Wilson, Jardine Turner	49
Rehder, Laurence Henry	67	Tanner, Arthur William	38	Wilson, Matthew Maurice	69
Reid, Ellis Vair	36	Taylor, Alfred Livingstone	68	Wilson, William Robert	41
Revell, George Ernest	36	Taylor, Frederick Ivanhoe	38	Wilson, William Tully	49
Richards, Ronald Mackenzie	36	Taylor, Geoffrey Barron	38	Withrow, William J.	41
Richings, William Percy	36	Taylor, John Sandford	38	Wood, Frank Abbott	59
Rivers, Rupert Elwyn	47	Taylor, Merrill Samuel	58	Wood, Lowell Wallace	69
Roberts, James Gershom	67	Taylor, Robert Edward	48	Woods, John Robinson	49
Robertson, Frank Bruce	67	Taylor, Ross Malcolm	38	Woodward, Roy Cecil	69
Robertson, James Ernest	36	Thompson, Arthur Bushette	38	Wordsworth, Osmund Bartle	41
Robinson, David Alexander	67	Thompson, Charles Everett	38	Wright, Benson	41
Rochereau de la Sablière, C. E.	67	Thomson, Henry Richard	48	Wright, William Jonathan	49
Rosevear, Stanley Wallace	47	Thomson, William Davidson	58	Wrong, Harold Verschoyle	41
Ross, Andrew	67	Thurston, Arnold Monroe	38	Yellowlees, Norman James L.	41
Ryerson, George Crowther	36	Todd, James Harvey	68	Youell, Arthur Warren	69
Ryrie, Evan	36	Tough, William Gordon	59	Young, M. Cortlandt de Bude	49
Sale, Charles Edward	36	Towers, Norman Ewart	39		

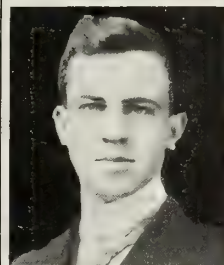
HONOUR ROLL



LIEUT. COLEMAN BOYD ADAMS
VICTORIA



SEC. LIEUT. JAMES DOUGLAS AIKEN
FORESTRY



Y.M.C.A. HUBERT GORDON ALLAN
UNIVERSITY COLLEGE



CPL. HENRY HAROLD ALLEN
TRINITY



PTE. THOMAS W.E. ALLEN
TRINITY



L/CPL. ARTHUR S. ANDERSON
APPLIED SCIENCE



PTE. CHARLES L. ANDERSON
FORESTRY



SEC. LIEUT. F.C. ANDREWS
APPLIED SCIENCE



LIEUT. GORDON S. ANDREWS
TRINITY



PTE. ANDREW W. ARCHIBALD
EDUCATION


HONOUR ROLL




LIEUT. PAUL L. ARMSTRONG
UNIVERSITY COLLEGE


MAJOR P. P. BALLACHEY
DENTISTRY


CPL. JOSEPH A. BASSETT
VICTORIA


CAPT. ALFRED C. BASTEDO
UNIVERSITY COLLEGE


CAPT. WILLIAM GEORGE BATES
TRINITY


MAJOR DAVID B. BENTLEY
TRINITY


GNR. WILLIAM A. BISHOP
APPLIED SCIENCE


SEC. LIEUT. GERALD E. BLAKE
UNIVERSITY COLLEGE


LIEUT. GEORGE E. BOTHWELL
FORESTRY


LIEUT. HAROLD S. BREWSTER
VICTORIA

HONOUR ROLL



LIEUT. ALBERT E. BRIGHT
KNOX



CAPT. THOMAS G. BRODIE
MEDICINE



CPL. WARREN G. BROWN
APPLIED SCIENCE



LIEUT. COL. G. W. BRUCE
VICTORIA



FLT. SUB-LIEUT. FRASER M. BRYANS
APPLIED SCIENCE



LIEUT. LEO BUCHANAN
UNIVERSITY COLLEGE



CAPT. GEORGE W. CALL
KNOX



LIEUT. A. R. CAMPBELL
APPLIED SCIENCE



COL. DUNCAN F. CAMPBELL
TRINITY



LIEUT. R. A. R. CAMPBELL
TRINITY


HONOUR ROLL




MAJOR WARREN K. CAMPBELL
VICTORIA


LIEUT. WILLIAM M. CARLYLE
APPLIED SCIENCE


CAPT. ADAM P. CHALMERS
TRINITY


LIEUT. J. R. CHAMBERLAIN
FORESTRY


PTE. ARTHUR W. CHESNUT
APPLIED SCIENCE


CPL. PHILIP F. CHIDLEY
UNIVERSITY COLLEGE


LIEUT. MAURICE A. CLARKSON
UNIVERSITY COLLEGE


CAPT. ALLEN C. MCGLEGHORN
TRINITY


LIEUT. CHARLES P. COTTON
APPLIED SCIENCE


PTE. RUSSELL A. CROSS
APPLIED SCIENCE

HONOUR ROLL



LIEUT. GORDON W. CROW
MEDICINE



FLT. SUB-LIEUT. H. L. CROWE
APPLIED SCIENCE



LIEUT. JOHN A. CULLUM
TRINITY



SEC-LIEUT. B. L. CUMPSTON
TRINITY



GNR. OLIVER G. DALRYMPLE
DENTISTRY



LIEUT. EYRE F. M. DANN
APPLIED SCIENCE



SEC-LIEUT. G. P. DAVIDSON
APPLIED SCIENCE



LIEUT. ERNEST L. DAVIES
AGRICULTURE



LIEUT. LESTER J. DEACON
APPLIED SCIENCE



CAPT. CARL DE FALLOT
TRINITY


HONOUR ROLL




LIEUT. HENRY L. DEVLIN
UNIVERSITY COLLEGE


CPL. DOUGLAS DICKSON
VICTORIA


GNR. KENNETH B. DOWNIE
KNOX


SPR. HUBERT S. DOWSON
VICTORIA


PTE. GEORGE C. DUFF
AGRICULTURE


CAPT. JAMES R. DUFF
DENTISTRY


LIEUT. GEORGE G. DUNCAN
MEDICINE


SEC. LIEUT. G. P. DUNSTAN
UNIVERSITY COLLEGE


LIEUT. F. LEARDLEY WILMOTT
APPLIED SCIENCE


SEC. LIEUT. H. S. EDMONDS
FORESTRY

HONOUR ROLL



PTE JUDSON H. ELLIS
PHARMACY



2ND LIEUT SHIRLEY D. ELLIS
APPLIED SCIENCE



LIEUT WILLIAM L. EVANS
MEDICINE



PTE JOHN C. FEENY
ST. MICHAELS



LIEUT HUBERT J. FENTON
VICTORIA



PTE VICTOR A. FERRIER
UNIVERSITY COLLEGE



FLT LIEUT G. R. S. FLEMING
APPLIED SCIENCE



SEC LIEUT J. S. FLEMING
APPLIED SCIENCE



SEC LIEUT F. J. FOSTER
UNIVERSITY COLLEGE



CAPT FINLAY D. FRASER
PHARMACY

HONOUR ROLL



SPR. HARRY W. FROGLEY
APPLIED SCIENCE



CPL. GEORGE G. GALLOWAY
UNIVERSITY COLLEGE



LIEUT. GERALD GALT
APPLIED SCIENCE



LIEUT. FRANCIS E. GANE
UNIVERSITY COLLEGE



LIEUT. JOHN U. GARROW
UNIVERSITY COLLEGE



MAJOR P. A. GILLESPIE
MEDICINE



SEC. LIEUT. ERNEST R. GILMER
MEDICINE



CAPT. G. C. GLIDDON
MEDICINE



GNR. THOMAS L. GOLDIE
UNIVERSITY COLLEGE



LIEUT. COL. ANDREW R. GORDON
MEDICINE



HONOUR ROLL





LIEUT. HENRY R. GORDON
UNIVERSITY COLLEGE



SEC. LIEUT. THOMAS S. GORDON
UNIVERSITY COLLEGE



PTE. THOMAS E. GOVENLOCK
EDUCATION



LIEUT. OSWALD W. GRANT
UNIVERSITY COLLEGE



LIEUT. HUGH A. MCK. GRASETT
APPLIED SCIENCE



MAJOR WILLIAM R. GREEN
VICTORIA



PTE. HENRY GREENWOOD
DENTISTRY



LIEUT. WILLIAM H. GREGORY
WYCLIFFE



LIEUT. DANIEL G. HAGARTY
APPLIED SCIENCE



PTE. DAVID ELLIOT HAIG
UNIVERSITY COLLEGE


HONOUR ROLL




FLT. LIEUT. O. D. HAIST
VICTORIA


CAPT. WILLIAM T. HALL
APPLIED SCIENCE


SEC. LIEUT. R. G. HAMILTON
UNIVERSITY COLLEGE


LIEUT. T. L. HARLING
APPLIED SCIENCE


CAPT. W. H. F. HARRIS
TRINITY


BDR. CHARLES E. HARROP
APPLIED SCIENCE


LIEUT. JAMES C. HARTNEY
APPLIED SCIENCE


LIEUT. JOHN I. HARVEY
EDUCATION


GNR. NORMAN J. HARVIE
APPLIED SCIENCE


GNR. JOHN HATELY
TRINITY


HONOUR ROLL




SGT. HENRY S. HAYES
TRINITY


CAPT. J. G. HELLIWELL
APPLIED SCIENCE


CAPT. JAMES HENDERSON
TRINITY


LT. MAURICE R. HENDERSON
UNIVERSITY COLLEGE


CAPT. LEWIS B. HENRY
AGRICULTURE


GNR. JOHN E. HILL
UNIVERSITY COLLEGE


L/CPL. HENRY B. HODGE
WYCLIFFE


LT. HERBERT S. HOLCROFT
APPLIED SCIENCE


CAPT. ROBERT HOME
MEDICINE


LT. COL. F. H. HOPKINS
UNIVERSITY COLLEGE

HONOUR ROLL



CAPT. RICHARD HORKINS
MEDICINE



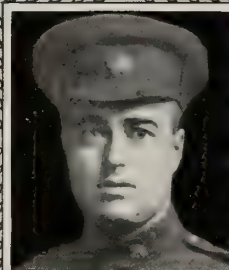
LIEUT. ASA M. HORNER
VICTORIA



LIEUT. FRANCIS C. HOWARD
MEDICINE



LIEUT. CHESTER HUGHES
APPLIED SCIENCE



PTE. HUGH L. HUGHES
EDUCATION



LIEUT. LINCOLN G. HUTTON
VICTORIA



SEC. LIEUT. J. H. INGERSOLL
TRINITY



CAPT. GEORGE L. INGLES
TRINITY



CAPT. OSCAR T. IRWIN
KNOX



PTE. ROBERT C. JAMIESON
UNIVERSITY COLLEGE

HONOUR ROLL



LIEUT. R.H.M. JOLLIFFE
VICTORIA



LIEUT. TRAFFORD JONES
APPLIED SCIENCE



PTE. WILLIAM M. KEHEY
AGRICULTURE



PTE. THOMAS E. KELLY
UNIVERSITY COLLEGE



CPL. STUART KENNEDY
AGRICULTURE



LIEUT. HERBERT N. KLOTZ
APPLIED SCIENCE



LIEUT. ARTHUR G. KNIGHT
APPLIED SCIENCE



CAPT. EDWARD J. KYLIE
UNIVERSITY COLLEGE



LIEUT. BERTRAM H. LANDELS
AGRICULTURE



MAJOR JAMES M. LANGSTAFF
UNIVERSITY COLLEGE



HONOUR ROLL





SPR. NORMAN LAWLESS
APPLIED SCIENCE



PTE. ALFRED E. LAWTON
WYCLIFFE



PTE. HARRY E. LEE
EDUCATION



LIEUT. AYTON R. LEGGO
DENTISTRY



LIEUT. W. E. LOCKHART
APPLIED SCIENCE



GNR. H. L. LONGWORTHY
APPLIED SCIENCE



PTE. SIDNEY J. LUCK
VICTORIA



L/CPL. J. G. LUMSDEN
VICTORIA



LIEUT. A. W. MACDONALD
UNIVERSITY COLLEGE



PTE. A. M. MACKENZIE
FORESTRY

HONOUR ROLL



LIEUT. G. L. B. MACKENZIE
UNIVERSITY COLLEGE



LIEUT. H. J. MACLAURIN
DENTISTRY



CAPT. DAVID D. MACLEOD
APPLIED SCIENCE



GNR. S. M. MACPHERSON
UNIVERSITY COLLEGE



L/CPL. THOMAS A. MCCOMB
VICTORIA



GNR. LORNE H. MCCURDY
UNIVERSITY COLLEGE



LIEUT. HUGH E. MCCUTCHEON
UNIVERSITY COLLEGE



SEC. LIEUT. R. B. MCGUIRE
DENTISTRY



LIEUT. G. K. MCKENDRICK
APPLIED SCIENCE



CAPT. W. W. MCKENZIE
MEDICINE


HONOUR ROLL




MAJOR W. S. McKEOUGH
MEDICINE


CAPT. D. B. McLEAN
MEDICINE


LIEUT. E. H. McVICKER
MEDICINE


SEC. LIEUT. M. I. MACHELL
TRINITY


SEC. LIEUT. J. R. MAGUIRE
APPLIED SCIENCE


CAPT. HENRY L. MAJOR
UNIVERSITY COLLEGE


LIEUT. MAURICE E. MALONE
UNIVERSITY COLLEGE


PTE. A. M. MARSHALL
VICTORIA


PTE. IVAN B. MARTY
MEDICINE


LIEUT. GEORGE G. MAY
UNIVERSITY COLLEGE

HONOUR ROLL



MAJ-GEN. M. S. MERCER
UNIVERSITY COLLEGE



MAJOR J. R. MEREDITH
UNIVERSITY COLLEGE



GNR ALBERT VON HOLT MICHELL
APPLIED SCIENCE



PTE. R. A. MITCHELL
TRINITY



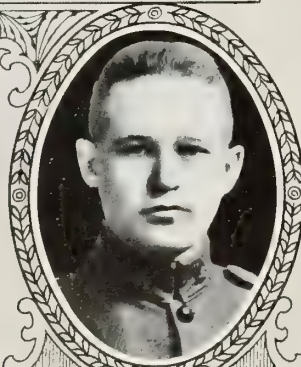
LIEUT. JOHN R. MITCHENER
APPLIED SCIENCE



CAPT. H. S. MONKMAN
MEDICINE



L/CPL. EDWARD C. MORGAN
EDUCATION



LIEUT. BASIL M. MORRIS
APPLIED SCIENCE



MAJOR CHARLES A. MOSS
UNIVERSITY COLLEGE



LIEUT. ARTHUR E. MUIR
UNIVERSITY COLLEGE


HONOUR ROLL



 LIEUT. HAROLD G. MURRAY UNIVERSITY COLLEGE	 LIEUT. HARRY R. NICHOLSON APPLIED SCIENCE	
 CAPT. JAMES H. OLDHAM VICTORIA	 LIEUT. J. A. N. ORMSBY APPLIED SCIENCE	 LIEUT. HAROLD H. OWEN MEDICINE
 LIEUT. GEORGE R. PARKE PHARMACY	 CAPT. M. H. PATERSON MEDICINE	 LIEUT. T. W. P. PEACOCK MEDICINE
 LIEUT. GORDON M. PEARCE APPLIED SCIENCE	 PTE. HORACE PEARSON APPLIED SCIENCE	

HONOUR ROLL



SEC-LIEUT. T. W. PENHALE
APPLIED SCIENCE



LIEUT. STANLEY J. PEPLER
APPLIED SCIENCE



LIEUT. V. R. PFRIMMER
APPLIED SCIENCE



SEC-LIEUT. C. V. PERRY
APPLIED SCIENCE



LT. H. ERROL B. PLATT
UNIVERSITY COLLEGE



PTE. ROY IRVINE POAST
VICTORIA



LIEUT. H. P. PRIMROSE
UNIVERSITY COLLEGE



CPL. ARTHUR H. QUA
APPLIED SCIENCE



PTE. MATTHEW RAE
MEDICINE



CPL. WILLIAM E. RALEY
APPLIED SCIENCE


HONOUR ROLL




FLT. SUB. LIEUT. E. V. REID
APPLIED SCIENCE


SPR. GEORGE E. REVELL
APPLIED SCIENCE


PTE. RONALD M. RICHARDS
TRINITY


GNR. WILLIAM P. RICHINGS
VICTORIA


LIEUT. JAMES E. ROBERTSON
UNIVERSITY COLLEGE


CAPT. GEORGE C. RYERSON
APPLIED SCIENCE


LIEUT. EVAN RYRIE
UNIVERSITY COLLEGE


MAJOR CHARLES E. SALE
DENTISTRY


LIEUT. CHARLES B. SCOTT
UNIVERSITY COLLEGE


LIEUT. FREDERICK G. SCOTT
VICTORIA

HONOUR ROLL



SGT. WESLEY G. SHIER
APPLIED SCIENCE



PTE. J. C. SHIPTON
AGRICULTURE



SEC. LIEUT. C. SIMPSON
VICTORIA



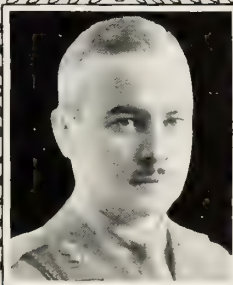
LIEUT. E. A. SIMPSON
UNIVERSITY COLLEGE



PTE. ROBERT W. SMITH
APPLIED SCIENCE



LIEUT. JAMES M. SOUTER
APPLIED SCIENCE



MAJOR G. H. SOUTHAM
UNIVERSITY COLLEGE



PTE. J. H. STEWART
APPLIED SCIENCE



LIEUT. E. Z. STIRRETT
MEDICINE



SEC. LIEUT. J. M. V. STRATHY
APPLIED SCIENCE


HONOUR ROLL




LIEUT. F. G. STUPART
FORESTRY


MAJOR C. E. SUTCLIFFE
APPLIED SCIENCE


LT-COL. ARTHUR W. TANNER
MEDICINE


CPL. FREDERICK I. TAYLOR
TRINITY


LIEUT. GEOFFREY B. TAYLOR
APPLIED SCIENCE


SUBLIEUT. J. S. TAYLOR
APPLIED SCIENCE


BDR. ROSS M. TAYLOR
VICTORIA


CPL. ARTHUR B. THOMPSON
WYCLIFFE


LIEUT. C. E. THOMPSON
MEDICINE


LIEUT. A. M. THURSTON
FORESTRY


HONOUR ROLL




CAPT. N. E. TOWERS
UNIVERSITY COLLEGE


SEC. LIEUT. B. F. TROTTER
UNIVERSITY OF TORONTO


SGT. R. D. TURNBULL
KNOX


CAPT. E. A. TWIDALE
APPLIED SCIENCE


LIEUT. K. M. VANALLEN
APPLIED SCIENCE


MAJOR G. E. VANSITTART
APPLIED SCIENCE


LIEUT. T. N. VICKERS
APPLIED SCIENCE


PTE. S. M. VOGAN
PHARMACY


LIEUT. S. A. WALKER
MEDICINE


FLT. SUB-LIEUT. H. D. M. WALLACE
APPLIED SCIENCE

HONOUR ROLL



SEC-LIEUT. F. W. WALSH
AGRICULTURE



LIEUT. ROBERT E. WATTS
APPLIED SCIENCE



CAPT. JAMES S. WEAR
VICTORIA



PTE. EDWARD A. WEBB
VICTORIA



LIEUT. GERALD E. WELLS
UNIVERSITY COLLEGE



LIEUT. JAMES L. WHITSIDE
APPLIED SCIENCE



LIEUT. MAURICE F. WILKES
UNIVERSITY COLLEGE



SEC-LIEUT. H. R. WILKINSON
UNIVERSITY COLLEGE



LIEUT. WILLIAM H. WILLARD
UNIVERSITY COLLEGE



SEC-LIEUT. C. M. WILLEY
APPLIED SCIENCE

HONOUR ROLL



SEC. LIEUT. G. K. WILLIAMS
APPLIED SCIENCE



SEC. LIEUT. R. WILLIAMS
UNIVERSITY COLLEGE



LIEUT. W. T. WILLISON
UNIVERSITY COLLEGE



LIEUT. H. M. WILSON
APPLIED SCIENCE



LIEUT. W. R. WILSON
KNOX



LIEUT. W. J. WITHROW
APPLIED SCIENCE



SEC. LIEUT. O. B. WORDSWORTH
TRINITY



LIEUT. B. WRIGHT
UNIVERSITY COLLEGE



LIEUT. H. V. WRONG
UNIVERSITY COLLEGE



CAPT. N. J. L. YELLOWLEES
MEDICINE


HONOUR ROLL




LIEUT. JOSEPH R. ADAMS
VICTORIA


LIEUT. WM. H. AGGETT
APPLIED SCIENCE


SGT. FREDK. S. ALBRIGHT
VICTORIA


S. FLT. LIEUT. S. H. ALLEN
UNIVERSITY COLLEGE


LIEUT. FREDK. J. ANDERSON
APPLIED SCIENCE


PTE. PERCY L. BARBER
EDUCATION


2. LIEUT. GEORGE H. BERRY
UNIVERSITY COLLEGE


MAJ. R. H. BONNYCASTLE
MEDICINE


MAJ. GEO. H. BOWLBY
TRINITY


COL. RUSSEL H. BRITTON
UNIVERSITY COLLEGE

HONOUR ROLL



CAPT. RICHARD AUSTIN BROWN
UNIVERSITY COLLEGE



CPL. WILLIAM PERCY BUCHANAN
EDUCATION



LIEUT. B.H.A. BURROWS
APPLIED SCIENCE



CAPT. WILLIAM G. BUTSON
EDUCATION



LIEUT. JOHN JAMES CAMPBELL
APPLIED SCIENCE



SGT. ARTHUR HENRY CAVILL
WYCLIFFE



GNR. JAMES R. CHAPMAN
APPLIED SCIENCE



2. LIEUT. PAUL B. CLARKE
TRINITY



FLT. CMDR. C.M. CLEMENT
APPLIED SCIENCE



LIEUT. W.H. CLIPPERTON
EDUCATION


HONOUR ROLL




PTE. WALTER H. COOPER
TRINITY


2ND LIEUT. L. J. CREASY
WYCLIFFE


LT. J. N. CUNNINGHAM
APPLIED SCIENCE


LT. GEORGE T. DAVIDSON
UNIVERSITY COLLEGE


LT. LAWRENCE L. DAVIDSON
UNIVERSITY COLLEGE


CAPT. ROBERT J. G. DOW
TRINITY


MAJ. JAFFRAY EATON
UNIVERSITY COLLEGE


FLT-LT. G. S. M. GAULD
UNIVERSITY COLLEGE


BDR. R. T. GARDNER
APPLIED SCIENCE


2ND LT. W. M. GEGGIE
UNIVERSITY COLLEGE

HONOUR ROLL



LT. STEWART M. GOODEVE
UNIVERSITY COLLEGE



LT. HENRY A. HARDING
TRINITY



BDR. ROY RICHARD HAWKEY
APPLIED SCIENCE



LIEUT. ERNEST D. HOSKEN
UNIVERSITY COLLEGE



CAPT. RICHARD A. IRELAND
MEDICINE



LT. COL. THOMAS C. IRVING
APPLIED SCIENCE



2ND LT. SINCLAIR B. JOHNSTON
UNIVERSITY COLLEGE



MAJOR HERBERT JONES
MEDICINE



LIEUT. ERNEST R. KAPPELE
UNIVERSITY COLLEGE



CPL. HUGH REID KAY
KNOX



UNIVERSITY OF TORONTO



HONOUR ROLL





DIEU ET MON DROIT



CAPT. A. J. LATORNELL
APPLIED SCIENCE



2ND LIEUT. H. LAWRENCE
WYCLIFFE



LIEUT. GORDON F. LESLIE
EDUCATION



L/CPL. MELVILLE E. LOBB
UNIVERSITY COLLEGE



CAPT. JAMES W. LOWE
PHARMACY



CAPT. C. K. MACPHERSON
APPLIED SCIENCE



SPR. AUBREY T. MCFADDEN
VICTORIA



MAJ. A. E. MCLAUGHLIN
UNIVERSITY COLLEGE



PTE. IAN C. MALLOUGH
DENTISTRY



GNR. FRANCIS V. MORTON
UNIVERSITY COLLEGE

HONOUR ROLL



LIEUT. EDGAR W. PATTEN
UNIVERSITY COLLEGE



SPR. CHARLES F. PATTERSON
VICTORIA



SGT. ROBERT D. PATTERSON
APPLIED SCIENCE



LIEUT. F. C. PEPIAT
WYCLIFFE



LIEUT. H. V. PICKERING
UNIVERSITY COLLEGE



2ND LIEUT. P. H. RANEY
APPLIED SCIENCE



L/CPL. R. E. RIVERS
MEDICINE



FLT. CMDR. CAPT. S. W. ROSEYEAR
APPLIED SCIENCE



SGT. EDWIN F. SANDERS
UNIVERSITY COLLEGE



LT. WM. GEORGE S. SCOTT
UNIVERSITY COLLEGE



HONOUR ROLL





FLT.S.LT. J.E. SHARMAN
APPLIED SCIENCE



LIEUT. JEFFERY F. SMITH
TRINITY



LIEUT. GEOFFREY A. SNOW
UNIVERSITY COLLEGE



SGT. T. V. SPARLING
VICTORIA



L/CPL. G. S. STRATFORD
APPLIED SCIENCE



MAJ. E. R. STREET
UNIVERSITY COLLEGE



LT. A. F. R. W. SWINNERTON
APPLIED SCIENCE



2ND LT. R. E. TAYLOR
APPLIED SCIENCE



LIEUT. H. R. THOMSON
TRINITY



SPR. JOHN W. TRIBBLE
VICTORIA



HONOUR ROLL





GNR. GEORGE E. WAIN
UNIVERSITY COLLEGE



LIEUT. H. J. WATSON
VICTORIA



CAPT. G. R. WEBER
VICTORIA



PTE. KENNETH WHITE
VICTORIA



PTE. MARK W. WILLIAMS
UNIVERSITY COLLEGE



GNR. JARDINE T. WILSON
UNIVERSITY COLLEGE



LIEUT. W. T. WILSON
KNOX



LIEUT. JOHN R. WOODS
UNIVERSITY COLLEGE



LIEUT. W. J. WRIGHT
UNIVERSITY COLLEGE



2ND LT. M. C. DE B. YOUNG
TRINITY



HONOUR ROLL



LT. JOHN O. ALLISON
MEDICINE



CAPT. W.G. AMSDEN
APPLIED SCIENCE



LT. WILBUR F. ANNIS
VICTORIA



CAPT. A.W. BAIRD
UNIVERSITY COLLEGE



FLT. CMDR. F. E. BANBURY
UNIVERSITY COLLEGE



GNR. LLOYD A. BANBURY
UNIVERSITY COLLEGE



FLT. LT. JOSEPH C. BARKER
DENTISTRY & ST. MICHAEL'S



PTE. E.A. BLATCHFORD
UNIVERSITY COLLEGE



LT. JAMES G. BOLE
UNIVERSITY COLLEGE



LT. FELIX O. BOLTE
UNIVERSITY COLLEGE

HONOUR ROLL



SGR. W. E. A. BROWN
UNIVERSITY COLLEGE



FLT. LT. W. G. BROWN
APPLIED SCIENCE



MAJ. JEFFREY H. BULL
UNIVERSITY COLLEGE



CAPT. R. M. BURGESS
DENTISTRY



MAJ. SIDNEY S. BURNHAM
UNIVERSITY COLLEGE



LT. GORDON A. COCKBURN
APPLIED SCIENCE



CAPT. C. C. CORBETT
VETERINARY



LT. WALTER G. COUTTS
MEDICINE



LT. ERNEST H. COX
TRINITY



FLT. S. LT. ALBERT E. CUZNER
UNIVERSITY COLLEGE


HONOUR ROLL




MAJ. GUSTAVUS M. DAVIS
MEDICINE


2ND LT. MELVILLE A. DAVIS
VICTORIA


GNR. JOHN D. DOHERTY
UNIVERSITY COLLEGE


GNR. A. M. DUNBAR
UNIVERSITY COLLEGE


CAPT. P. McLAREN FORIN
UNIVERSITY COLLEGE


2ND LT. DONALD P. GIBSON
UNIVERSITY COLLEGE


LT. FRANKLIN R. GIBSON
APPLIED SCIENCE


LT. STANLEY H. GLENDINNING
UNIVERSITY COLLEGE


LT. AMBROSE H. GOODMAN
UNIVERSITY COLLEGE


LT. HEDLEY J. GOODYEAR
VICTORIA

HONOUR ROLL



LT. JOHN A. GORDON
UNIVERSITY COLLEGE



FT. LT. W. H. R. GOULD
APPLIED SCIENCE



LT. FRED N. GRANDY
EDUCATION



2ND LT. JAMES B. GRANGE
AGRICULTURE



SGT. J. V. GUILFOYLE
UNIVERSITY COLLEGE



LT. MURRAY G. GUNN
UNIVERSITY COLLEGE



SPR. C. O. R. HAMES
APPLIED SCIENCE



CAPT. H. K. HARRIS
UNIVERSITY COLLEGE



LT. THOMAS H. HEINTZMAN
APPLIED SCIENCE



CAPT. DAVID E. HOWES
TRINITY MEDICINE


HONOUR ROLL



 PTE. F. P. JACKES APPLIED SCIENCE	 LT. L. F. JAMIESON MEDICINE	
 CAPT. RALPH H. JARVIS APPLIED SCIENCE	 LT. E. P. JENSEN AGRICULTURE	 SGT. A. C. JOURDAN VICTORIA
 LT. H. A. T. KENNEDY TRINITY	 LT. VERNON KING AGRICULTURE	 LT. JOHN H. KNOX UNIVERSITY COLLEGE
 L/CPL. HENRY D. LANG UNIVERSITY COLLEGE	 LT. HAROLD O. LEACH APPLIED SCIENCE	

HONOUR ROLL



LT. JOHN LEONARD
UNIVERSITY COLLEGE



LT. H. DALTON LIVINGSTONE
APPLIED SCIENCE



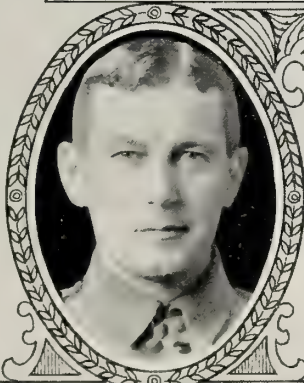
CAPT. B. M. LOUDON
UNIVERSITY COLLEGE



LT. ROBERT W. McBRADY
ST. MICHAEL'S



LT. D. S. McCARTER
TRINITY



LT. COL. JOHN McCRAE
UNIVERSITY COLLEGE & MEDICINE



LT. ALEX. G. MACDONALD
APPLIED SCIENCE



LT. J. W. McDOWELL
MEDICINE



LT. PETER L. MCGAVIN
APPLIED SCIENCE



CAPT. A. P. MACLEAN
APPLIED SCIENCE

HONOUR ROLL



LT. DONALD G. MACLEAN
APPLIED SCIENCE



BDR. DONALD M. MCLENNAN
AGRICULTURE



CAPT. WM. G. MACNEVIN
DENTISTRY



LT. F. J. S. MARTIN
TRINITY



LT. JOHN F. MEEK
UNIVERSITY COLLEGE



LT. GERALD J. W. MEGAN
UNIVERSITY COLLEGE



LT. DONALD W. MORRISON
UNIVERSITY COLLEGE



LT. COL. HEBER H. MOSHIER
MEDICINE



2ND LT. JOHN C. NEWCOMBE
APPLIED SCIENCE



LT. HERBERT B. NORTHWOOD
UNIVERSITY COLLEGE

HONOUR ROLL



LT. BALFOUR M. PALMER
VICTORIA



2ND LT. G.L.R. PARRISH
VICTORIA



LT. NORMAN H. PAWLEY
AGRICULTURE



FLT. S. LT. JAMES E. POTVIN
UNIVERSITY COLLEGE



2ND LT. HENRY C. QUAIL
APPLIED SCIENCE



MAJ. JOHN HENRY RATZ
UNIVERSITY COLLEGE & MEDICINE



2ND LT. DOUGLAS G. SCOTT
APPLIED SCIENCE



FLT. LT. GEORGE B.G. SCOTT
EDUCATION



LT. JAMES G. SCOTT
APPLIED SCIENCE



LT. WALTER F. SCOTT
EDUCATION


HONOUR ROLL




LT. COL. SAMUEL S. SHARPE
UNIVERSITY COLLEGE


CAPT. ROBERT S. SMITH
MEDICINE


PTE. LORNE SNYDER
UNIVERSITY COLLEGE


LT. RUSSELL W. SOPER
APPLIED SCIENCE


LT. W. STANLEY STEELE
APPLIED SCIENCE


L/CPL. C. HILTON STEWART
PHARMACY


LT. CLIFFORD STOKES
AGRICULTURE


GNR. W. A. D. SUTTERBY
VICTORIA


FLT. S. L. M. S. TAYLOR
APPLIED SCIENCE


LT. W. D. THOMSON
UNIVERSITY COLLEGE

HONOUR ROLL



LT. WILLIAM G. TOUGH
APPLIED SCIENCE



MAJ. J. A. TREBILCOCK
FORESTRY



FLT. LT. W. FRANCIS TWOHEY
UNIVERSITY COLLEGE



LT. JOSEPH T. WALKER
APPLIED SCIENCE



SPR. HENRY G. WARD
APPLIED SCIENCE



LT. CHARLES H. WATSON
UNIVERSITY COLLEGE



LT. R. H. ARNOLD WEST
EDUCATION



2ND LT. C. H. WHEELOCK
APPLIED SCIENCE



LT. ARTHUR P. WILSON
UNIVERSITY COLLEGE



FLT. LT. FRANK A. WOOD
APPLIED SCIENCE





HONOUR ROLL





LT. E. M. ABENDANA
APPLIED SCIENCE



LT. W. B. ANDREW
APPLIED SCIENCE



CAPT. T. A. ARTHURS
UNIVERSITY COLLEGE



I-LT. F. A. BALLACHEY
DENTISTRY



LT. W. R. BAUER
APPLIED SCIENCE



LT. G. C. BEATON
EDUCATION



CAPT. P. V. BINNS
APPLIED SCIENCE



LT. M. H. BIRD
UNIVERSITY COLLEGE



CAPT. G. G. BRICKER
FORESTRY



CAPT. S. H. BROCKLEBANK
UNIVERSITY COLLEGE

HONOUR ROLL

MAJ. W. J. G. BURNS
VICTORIA

CAPT. O. L. CAMERON
APPLIED SCIENCE

F. LT. J. P. CAVERS
APPLIED SCIENCE

F. LT. JAMES D. COOK
APPLIED SCIENCE

CAPT. J. P. CRAWFORD
TRINITY

CAPT. H. A. CULHAM
MEDICINE

F. LT. H. W. M. CUMMING
UNIVERSITY COLLEGE

PTE. O. G. DARLING
APPLIED SCIENCE

LT. I. H. DAWSON
APPLIED SCIENCE

SGT. MAJ. C. J. DICKINSON
VICTORIA





HONOUR ROLL







CADET T.W. DUNCAN
APPLIED SCIENCE



CAPT. G. DUNDAS
VICTORIA



CADET C.E. ELLIOTT
UNIVERSITY COLL. & WYCLIFFE



LT. D.Q. ELLIS
UNIVERSITY COLLEGE



LT. R.B. ELSLEY
APPLIED SCIENCE



LT. G.O. FORSYTH
EDUCATION



LT. G.M. FRETWELL
MEDICINE



FLT. LT. A.M. FROOM
UNIVERSITY COLLEGE



LT. JAS. ALEX. GARVIE
APPLIED SCIENCE



SURG. PROBR. J.D. GEAR
MEDICINE

HONOUR ROLL



LT. H. A. GORDON
UNIVERSITY COLLEGE



LT. R. V. GORDON
APPLIED SCIENCE



CAPT. T. F. GRAHAM
MEDICINE



LT. A. D. GRAY
UNIVERSITY COLLEGE



LT. R. M. M. GRAY
PHARMACY



PTE. I. T. GREEN
EDUCATION



CAPT. A. GRISDALE
MEDICINE



CAPT. J. P. HALES
AGRICULTURE



LT. D. K. HAMILTON
VICTORIA



2ND LT. H. L. HANNA
UNIVERSITY COLLEGE



HONOUR ROLL



CPL. J.H. JACKSON
VICTORIA - UNIV. COLLEGE



CAPT. E.F. JOHNSTON
VICTORIA



GNR. G.J. KEAN
MEDICINE



MAJ. CLEVELAND KEYES
TRINITY



MASSEUSE L.D. KEYS
VICTORIA



LT. S.A. LANG
APPLIED SCIENCE



CAPT. E.J. LEARY
UNIV. COLLEGE - MEDICINE



CAPT. A.V. LEONARD
MEDICINE



LT. W.B. LESLIE
EDUCATION



CAPT. N.H. LITTLE
MEDICINE

HONOUR ROLL

LT. R. E. MACBETH
APPLIED SCIENCE

GNR. G. A. McEWEN
APPLIED SCIENCE

CAPT. G. A. MCGIFFIN
UNIVERSITY COLLEGE

2. LT. D. F. MACKENZIE
UNIV. COLLEGE - KNOX

LT. G. D. McLEAN
UNIVERSITY COLLEGE

SGT. J. D. McMURRICH
TRINITY

LT. G. M. MATHESON
TRINITY - MEDICINE

LT. R. DEL. MILLYARD
VICTORIA

GNR. C. W. D. MOONEY
VICTORIA

LT. A. F. G. NORRIS
APPLIED SCIENCE

HONOUR ROLL



CAPT. A.A. PARKER
MEDICINE



LT. H.B. PRESTON
UNIVERSITY COLLEGE



LT. J.S. RÉAUME
MEDICINE



LT. L.H. REHDER
VICTORIA



CAPT. J.G. ROBERTS
DENTISTRY



SGR. F.B. ROBERTSON
FORESTRY - UNIV. COLL.



LT. D.A. ROBINSON
APPLIED SCIENCE



LT. C.E. ROCHEREAU DE LA SABLIERE
UNIVERSITY COLLEGE



CAPT. A. ROSS
MEDICINE



SGR. M.D. SCHELL
APPLIED SCIENCE

HONOUR ROLL



LT. P. R. SHANNON
MEDICINE



LT. J. G. SHEPLEY
APPLIED SCIENCE



2LT. M. R. SHIER
EDUCATION



MAJ. J. D. SIMPSON
UNIVERSITY COLLEGE



LT. K. I. SOMERVILLE
UNIVERSITY COLLEGE



CAPT. J. A. STANLEY
MEDICINE



FLT. LT. H. B. STECKLEY
AGRICULTURE



LT. J. H. A. STONEMAN
VICTORIA



CPL. A. L. TAYLOR
VICTORIA



MAJ. J. H. TODD
MEDICINE


HONOUR ROLL




LT. R.A. WALTER
UNIVERSITY COLLEGE


2 LT. I.J. WARREN
PHARMACY


CAPT. D. WEIR
AGRICULTURE


LT. COL. T.B. WELCH
PHARMACY


LT. R.P. WILKINS
TRINITY


1 LT. P.E. WILLIAMS
APPLIED SCIENCE


LT. M.M. WILSON
TRINITY


LT. L.W. WOOD
UNIVERSITY COLLEGE


DR. R.C. WOODWARD
MEDICINE


SGT. A.W. YUELL
APPLIED SCIENCE

HONOUR ROLL



Capt. E. Z. Agar
Agriculture

Lt. T. A. Allen
Pharmacy

i. Lt. W. L. Argo
University College

Maj. R. S. Armour
Medicine

H. E. Bagsley
Agriculture

H. H. G. Barrett
Agriculture

R. Bew's
Agriculture

C. A. Bradley
Agriculture

Lt. J. W. R. Campbell
Agriculture

Lt. F. A. Cash
Dentistry

Sgt. A. H. Cavill
University College and Wycliffe

W. L. Charlton
Education

H. F. Christie
Agriculture

L. P. Clemens
Agriculture

Lt. F. N. Cluff
Dentistry

Lt. W. W. Code
Applied Science

Lt. D. J. Coulter
Medicine

W. A. Coulter
Agriculture

Lt. S. Cowan
University College

Lt. H. S. Cunningham
Agriculture

Lt. R. A. Cunningham
Staff

A. R. Dow
Agriculture

Pte. C. Ellis
University College and Applied Science

E. R. Fairclough
Agriculture

E. J. Fitzgerald
Agriculture

A. C. Fitzpatrick
Agriculture

ON THIS PAGE ARE INSCRIBED THE NAMES OF THOSE WHOSE PHOTOGRAPHS WERE NOT OBTAINABLE FOR THIS HONOUR ROLL OF SIX HUNDRED AND FOUR OF VARSITY'S SONS WHO GAVE THEIR LIVES IN THE DISCHARGE OF THEIR DUTY.

HONOUR ROLL



C. I. Forman
Agriculture

Capt. J. M. Greenshields
Agriculture

P. S. Gregory
Agriculture

Lt. H. L. Hammond
Agriculture

Lt. H. C. Harder
Agriculture

Lt. N. J. Harkness
Agriculture

C. Harrop
Agriculture

Capt. Wm. Henderson
Trinity Medicine

Lt. L. J. Hextall
Agriculture

J. Hiddleston
Agriculture

J. C. Hogarth
Agriculture

Capt. T. B. Jack
Applied Science

Maj. John Kay
Applied Science

C. E. Keemle
St. Michael's

A. C. Lane
Agriculture

Capt. G. D. Lee
Agriculture

H. H. Lindesay
Agriculture

Lt. Q. McLaren
Agriculture

Fl.-Lt. G. G. MacLennan
Applied Science

Lt. J. M. Macklin
Agriculture



W. G. Magee
Agriculture

Lt. A. Matheson
Agriculture


D. S. Maynard
Agriculture

G. Mucklow
Agriculture

ON THIS PAGE ARE INSCRIBED THE NAMES OF THOSE WHOSE PHOTOGRAPHS WERE NOT OBTAINABLE FOR THIS HONOUR ROLL OF SIX HUNDRED AND FOUR OF VARSITY'S SONS WHO GAVE THEIR LIVES IN THE DISCHARGE OF THEIR DUTY.



HONOUR ROLL





Lt. M. A. Neilson
Agriculture

Capt. J. F. Palling
Trinity Medicine

A. M. Patch
Agriculture

A. O. Periera
Agriculture

Flt.-Lt. F. C. Robinson
Agriculture

Lt. E. G. Rowley
Agriculture

G. H. Scott
Agriculture

2. Lt. A. McG. Simpson
University College

Lt. M. T. Smith
Agriculture

Lt. R. L. Smith
University College

Cadet I. E. Soule
University College

Capt. C. A. Sparling
Trinity

Lt. E. A. Trendall
Agriculture

C. T. Walker
Agriculture

M. S. Waters
Agriculture

Lt. R. S. Watt
Agriculture

1. Lt. W. J. Watts
University College

E. W. Weber
Agriculture

Lt. J. Weir
Agriculture

H. Westra
Agriculture

Pte. P. Wilson
Trinity

S. C. Wilson
Agriculture

J. H. Winslow
Agriculture

R. G. Yule
Agriculture

ON THIS PAGE ARE INSCRIBED THE NAMES OF THOSE WHOSE PHOTOGRAPHS WERE NOT OBTAINABLE FOR THIS HONOUR ROLL OF SIX HUNDRED AND FOUR OF VARSITY'S SONS WHO GAVE THEIR LIVES IN THE DISCHARGE OF THEIR DUTY.

Military Honours Won by Members of the University of Toronto

[The following list of Honours is a summary from the Roll of Service issued by the University and covers the period from August 1914 to December 1918. As the award of additional honours is being frequently reported to the Roll of Service office at the University it will be understood that there may be other names which should appear in this list.—EDITOR.]

Victoria Cross

Maj. T. W. MacDowell.

C.M.G.

Lt.-Col. J. A. Amyot.
Lt.-Col. D. J. Armour.
Col. J. A. Armstrong.
Brig.-Gen. E. C. Ashton.
Lt.-Col. G. W. Badgerow.
Maj. E. Bristol.
Brig.-Gen. J. F. L. Embury.
Surg.-Gen. J. T. Fotheringham.
Adj.-Gen. W. E. Hodgins.
Asst. Adj.-Gen. C. S. MacInnes.
Brig.-Gen. C. H. Maclaren.
Col. D. W. McPherson.
Lt.-Col. C. H. Mitchell.
Maj. F. F. Montague.
Col. F. Morison.
Col. C. T. Nasmith.
Brig.-Gen. V. W. Odlum.
Col. H. C. Osborne.
Lt.-Col. G. S. Rennie.
Col. W. A. Scott.
Col. A. E. Snell.
Col. R. H. Steacy.
Gen. Sir E. S. Worthington.

C.B.

Brig.-Gen. A. McDougall.
Maj.-Gen. M. S. Mercer.
Lt.-Col. C. H. Mitchell.
Brig.-Gen. V. W. Odlum.
Lt.-Col. A. Primrose.
Col. J. A. Roberts.

D.S.O.

Lt.-Col. C. W. Allen.
Capt. G. W. Armstrong.
*Lt.-Col. R. H. Britton.
Flt.-Cmdr. H. J. Burden.
Lt. S. S. Burnham.
Brig.-Gen. J. A. Clark.
Lt.-Col. F. F. Clarke.
Maj. G. A. Cline.
Lt.-Col. F. T. Coghlan.
Maj. C. A. Corrigan.
Lt.-Col. J. E. Davey.
Lt.-Col. H. J. Dawson.
Maj. W. W. Denison.
Maj. D. K. Edgar.
Maj. C. Flint.
Lt.-Col. J. J. Fraser.
Maj. H. W. A. Foster.
Maj. T. Gibson.
Maj. R. M. Gorssline.
Lt.-Col. J. N. Gunn.
Lt. E. B. Hardy.
Lt.-Col. W. B. Hendry.
Maj. H. F. H. Hertzberg.
Maj. L. E. W. Irving.
*Lt.-Col. T. C. Irving.
Maj. J. T. Janson.

* Pro patria mortuus.

D.S.O.

(Continued)

Lt.-Col. L. E. Jones.
Lt.-Col. D. P. Kappeler.
Capt. C. E. Kilmer.
Lt. W. H. King.
*Lt. A. G. Knight.
Capt. C. B. Lindsey.
Lt.-Col. T. McC. Leask.
Capt. J. G. McCorkindale.
Capt. K. H. McCrimmon.
Maj. K. H. McDougall.
Maj. T. W. MacDowell.
Maj. T. H. McKillip.
Maj. T. H. Maclaren.
Maj. H. J. McLaughlin.
Maj. N. B. MacLean.
Maj. G. W. Macleod.
Maj. S. P. McMordie.
Maj. K. A. Mahaffy.
Staff Capt. C. K. Martin.
Maj. D. H. C. Mason.
Lt.-Col. C. H. Mitchell.
Lt.-Col. P. J. Montague.
Maj. F. Morison.
Maj. J. A. Morphy.
Maj. L. C. Moyer.
Brig.-Gen. V. W. Odlum.
Maj. J. L. R. Parsons.
Maj. E. Pepler.
Maj. A. G. Poupore.
Lt. E. E. Price.
Maj. E. F. Pullen.
Maj. N. R. Robertson.
Brig.-Gen. J. M. Ross.
Capt. C. G. Saunders.
*Lt.-Col. S. S. Sharpe.
Flt.-Cmdr. A. McD. Shook.
Maj. A. E. Snell.
*Capt. E. R. Street.
Maj. A. E. Taylor.
Maj. J. H. Thornley.
Maj. R. S. Timmins.
Maj. A. D. Wilson.
Capt. H. G. Young.

Bar to D.S.O.

Brig.-Gen. J. A. Clark.
Lt.-Col. F. F. Clarke.
Brig.-Gen. J. M. Ross.

Military Cross.

Maj. P. P. Acland.
Lt. J. H. Adams.
Lt. E. R. Allen.
Capt. H. H. Argue.
Lt. A. C. Armstrong.
Lt. J. C. Auld.
2. Lt. W. J. Baird.
Lt. J. G. Beatty.
Lt. P. W. Beatty.
Capt. C. A. Bell.
Flt.-Cmdr. H. B. Bell.

Military Cross

(Continued)

Lt. J. S. Bell.
Capt. T. H. Bell.
Lt. H. W. Bethune.
2. Lt. E. C. Bevan.
Lt. P. V. Binns.
Staff Capt. G. G. Blackstock.
Capt. C. A. Brisco.
Asst. Adj. G. W. Brown.
Capt. J. V. Brown.
Lt. R. A. Brown.
Lt. N. V. Buchanan.
Capt. H. Buck.
Lt. L. F. Burrows.
2. Lt. H. S. Calverley.
Lt. H. C. Cameron.
Lt. H. M. Campbell.
*Lt. J. J. Campbell.
Capt. L. A. Carr.
Capt. J. P. S. Cathcart.
Capt. R. W. Catto.
Lt. E. V. Chambers.
Capt. J. R. L. Christian.
Lt. H. R. Christie.
Lt. G. Clark.
Lt. T. W. Clarke.
Lt. E. G. Clarkson.
Lt. C. P. Coatsworth.
Capt. R. C. Coatsworth.
Lt. K. E. Cooke.
Capt. W. G. Cosbie.
Lt. A. J. Cowan.
*Lt. G. W. Crow.
*Capt. J. A. Cullum.
Capt. A. T. Davidson.
Capt. H. C. Davis.
2. Lt. M. A. Davis.
Maj. H. McM. Dawson.
*Lt. I. H. Dawson.
Lt. O. J. Day.
Capt. F. S. Dent.
2. Lt. E. V. Deverall.
Capt. A. A. Drinnan.
Lt. W. S. Duncan.
Lt. G. Dundas.
Lt. A. Eastham.
Lt. J. H. Eastwood.
*2. Lt. H. S. Edmonds.
Lt. M. L. Ellis.
*2. Lt. S. D. Ellis.
Lt.-Col. T. C. Evans.
Lt. A. B. Fennell.
Capt. C. P. Fenwick.
Lt. G. H. Ferguson.
Lt. D. W. Ferrier.
Maj. J. E. M. Fetherstonagh.
Lt. T. I. Findlay.
Maj. H. W. A. Foster.
Capt. D. T. Fraser.
Lt. S. G. Freeborn.
Capt. C. T. Galbraith.
Asst. Adj. J. S. Galbraith.

THE VARSITY MAGAZINE SUPPLEMENT

Military Cross

(Continued)

Maj. R. D. Galbraith.
 *2. Lt. G. S. M. Gauld.
 Lt. J. G. Gauld.
 Capt. A. J. Gilchrist.
 Lt. E. I. Gill.
 Capt. W. C. Givens.
 Capt. M. E. Gorman.
 Lt. D. A. Graham.
 Lt. D. S. Graham.
 *Lt. O. W. Grant.
 Lt. A. D. Gray.
 Maj. G. G. Greer.
 Maj. J. E. Hahn.
 Capt. E. W. Haldenby.
 2. Lt. C. P. Halliday.
 Capt. H. P. Hamilton.
 *Capt. H. K. Harris.
 Capt. R. I. Harris.
 Capt. H. Hart.
 Maj. M. M. Hart.
 Capt. F. R. Hassard.
 Maj. A. K. Haywood.
 *Lt. G. Heighington.
 Capt. W. D. Herridge.
 Lt. C. S. L. Hertzberg.
 Maj. H. F. H. Hertzberg.
 Lt. R. T. C. Hoidge.
 Capt. J. A. Hope.
 Capt. A. D. Hume.
 Lt. J. N. Humphrey.
 Lt. L. Husband.
 Lt. S. B. Iler.
 Maj. R. F. Inch.
 *Flt.-Cmdr. R. H. Jarvis.
 Maj. E. S. Jeffrey.
 Capt. H. B. Jeffs.
 Capt. G. R. Johnson.
 Capt. A. C. C. Johnston.
 Capt. R. L. Junkin.
 Lt. K. W. Junor.
 *Maj. J. Kay.
 Maj. M. P. Kennedy.
 *Maj. C. Keyes.
 Lt. N. A. Keys.
 Capt. G. C. Kidd.
 Capt. W. E. Kidd.
 Lt. L. W. Klingner.
 *Lt. A. G. Knight.
 Lt. J. A. Langford.
 2. Lt. G. VanW. Laughton.
 Lt. R. M. Law.
 Capt. J. G. Lee.
 Lt. A. G. Leslie.
 Lt. A. B. Lindsay.
 Lt. J. A. Linton.
 Sgt. H. B. Little.
 Lt. J. A. McCamus.
 Lt. J. G. McCaul.
 Lt. R. V. Macaulay.
 Capt. H. McCausland.
 Lt. V. S. McClenaghan.
 Capt. W. S. McClinton.
 Capt. J. C. McCorkindale.
 Capt. O. B. McCuaig.
 Lt. N. F. Macdonald.
 Lt. A. H. MacFarlane.
 Maj. A. McN. McFaul.
 Lt. W. L. McGeary.
 Lt. W. G. McGhie.
 Lt. P. McGibbon.
 Maj. F. A. McGiverin.
 Maj. A. H. McGreer.
 Lt. D. McGugan.

* Pro patria mortuus.

Military Cross

(Continued)

Lt. E. V. McKague.
 Capt. H. J. Mackenzie.
 Lt. J. A. McKinnon.
 Capt. A. L. MacLennan.
 Capt. J. G. McMillan.
 Lt. H. C. McMordie.
 Lt. A. A. McQueen.
 Lt. H. J. MacTavish.
 Lt. G. E. Macklin.
 Maj. K. A. Mahaffy.
 Capt. R. J. Manion.
 Capt. T. W. B. Marling.
 Capt. J. F. S. Marshall.
 Flt.-Cmdr. N. C. Millman.
 Lt.-Col. P. J. Montague.
 Capt. T. W. Moore.
 Lt. V. H. K. Moorhouse.
 Maj. F. J. Mulqueen.
 Capt. A. G. Naismith.
 Lt. A. R. Neelands.
 Capt. H. Parke.
 Capt. A. A. Parker.
 *Capt. M. H. Paterson.
 Lt. G. C. Patterson.
 *Lt. N. H. Pawley.
 Maj. W. M. Pearce.
 *2. Lt. C. V. Perry.
 Maj. W. E. Phillips.
 Capt. W. E. Poupore.
 Lt. F. M. Pratt.
 Lt. E. E. Price.
 Lt. W. Proudfoot.
 Lt. C. M. G. Purchas.
 Lt. W. F. Rattle.
 Capt. J. S. Reid.
 Lt. C. E. Richardson.
 Bde. Adj. W. A. Richardson.
 Capt. C. H. Rogers.
 Lt. W. W. Rogers.
 Lt. R. R. Rose.
 2. Lt. J. H. Ross.
 Lt. H. M. Rowe.
 Capt. K. H. Saunders.
 Capt. L. B. Saunders.
 Lt. R. P. Saunders.
 Lt. A. G. Scott.
 Lt. T. E. Seale.
 Lt. J. F. L. Simmons.
 *Maj. J. D. Simpson.
 2. Lt. H. A. Sinclair.
 Capt. W. E. Sinclair.
 Maj. I. MacI. R. Sinclair.
 Lt. W. R. Skey.
 Lt. C. E. Smith.
 Lt. G. M. Smith.
 Lt. C. Smythe.
 Lt. F. A. Spence.
 Lt. W. A. Steel.
 Capt. A. E. Stewart.
 Capt. T. H. Stewart.
 Lt. J. J. Stock.
 Maj. D. H. Storms.
 Lt. A. E. Sutton.
 Capt. A. H. Taylor.
 Lt. F. H. Taylor.
 Capt. R. H. Thomas.
 Lt. A. O. Thompson.
 Capt. R. F. Thompson.
 Capt. S. M. Thorne.
 Lt. L. B. Tillson.
 Capt. M. N. Tompkins.
 *2. Lt. J. A. Trebilcock.
 2. Lt. D. P. Wagner.

Military Cross

(Continued)

Capt. F. M. Walker.
 St. Capt. H. MacD. Wallis.
 Capt. D. A. Warren.
 Lt. H. Webster.
 Capt. J. G. Weir.
 2. Lt. A. R. Wells.
 Lt. A. M. West.
 Lt. G. A. Wheable.
 Capt. W. L. Whittemore.
 Capt. R. W. H. Williams.
 Maj. LeR. Wilson.
 Capt. H. A. Wood.
 2. Lt. E. H. G. Worden.
 Lt. A. J. Wright.
 Capt. C. S. Wright.
 Capt. C. S. Wynne.
 Lt. L. L. Youell.
 Capt. C. R. Young.

Distinguished Service Cross.

*Flt.-Cmdr. F. E. Banbury.
 Flt.-Lt. R. D. Delamere.
 Flt.-Lt. E. R. Grange.
 Flt.-Cmdr. T. D. Hallam.
 — P. C. Innis.
 Sqd.-Cmdr. H. S. Kerby.
 Lt. D. A. H. Nelles.
 *Flt.-S. Lt. E. V. Reid.
 *Flt.-S. Lt. S. W. Rosevear.
 *Flt.-S. Lt. J. E. Sharman.
 Lt. L. R. Shoebottom.
 Flt.-Cmdr. A. McD. Shook.
 Surg.-Probr. W. P. Warner.
 Capt. A. T. Whealy.

Bar to D.S. Cross.

Sqd.-Cmdr. T. D. Hallam.
 Capt. A. T. Whealy.

D.F.C.

Flt.-Cmdr. H. J. Burden.
 Flt.-Cmdr. J. E. Croden.
 Lt. L. R. Shoebottom.

D.C.M.

Lt. M. J. Aiken.
 Lt. W. H. B. Bevan.
 Sgt. W. Burd.
 Sgt.-Maj. C. B. Ferris.
 Lt. C. K. Hoag.
 Sgt. F. C. A. Houston.
 Sgt. H. W. Langdon.
 Cpl. A. R. Mendizabal.
 Gnr. W. McL. Mustard.
 Maj. C. B. Nourse.
 Lt. A. C. Oxley.

Military Medal.

Sgt. G. A. Arksey.
 Gnr. T. E. Armstrong.
 Sgt. R. C. Bennett.
 L.-Cpl. W. L. D. Carnie.
 Cpl. A. W. Crawford.
 Spr. W. P. Dale.
 Gnr. L. W. Dippell.
 Gnr. P. A. Durbrow.
 Pte. C. M. Hatheway.
 *Sgt. H. S. Hayes.
 Gnr. F. B. Houston.
 Gnr. J. Kingsborough.
 Cadet W. C. Little.
 Gnr. G. A. McEwen.

Military Medal*(Continued)*

Pte. J. E. McGillivray.
 Capt. F. T. Mabson.
 Staff Sgt. F. J. O'Leary.
 Sgt. W. G. Smith.
 Bdr. G. H. Snell.
 Gnr. V. D. Speer.
 Spr. B. S. Summers.
 Sgt. C. B. Sutherland.
 Bdr. J. B. Symington.
 Spr. F. H. Wilkinson.
 *Sgt. A. W. Youell.

Bar to Military Medal.

Sgt. W. G. Smith.

Cross of the Legion of Honour.

2. Lt. C. S. Wright.

Chevalier of Legion of Honour.

Capt. L. A. Bibet.
 Capt. G. A. Cline.
 Brig.-Gen. A. McDougall.
 Lt.-Col. C. H. Mitchell.

Croix de Guerre avec palme.

Capt. A. C. Armstrong.
 Maj. H. L. Keegan.
 Flt.-Sub. Lt. J. E. Sharman.

Croix de Guerre.

Maj. W. H. K. Anderson.
 Capt. L. A. Bibet.
 *Flt.-Cmdr. C. M. Clement.
 Capt. E. F. Coke.
 *Capt. J. A. Cullum.
 Sgt.-Maj. C. B. Ferris.
 Maj. C. Flint.
 Flt.-Lt. E. R. Grange.
 Capt. A. J. Johnson.
 *Flt.-Cmdr. G. G. MacLennan.
 Capt. A. E. McCullough.
 Maj. E. Pepler.
 *Cpl. C. E. Rochereau de la Sabliere.
 Flt.-Cmdr. A. McD. Shook.
 Capt. S. M. Thorne.

Medaille De L'Instruction Publique

Capt. T. McD. Savage.

Serbian Order of White Eagle.

Lt.-Col. G. Gow.

Serbian Cross of St. Sava.

Maj. W. H. G. Aspland.
 Col. H. G. Barrie.
 Capt. J. K. Mossman.
 Capt. H. J. Shields.

Serbian Red Cross Order.

Maj. W. H. G. Aspland.

Russian Order of St. Anna.

Maj. F. F. Montague (2nd Class).

Italian Order of the Crown.

Lt.-Col. C. H. Mitchell.

Knighted by King of Italy.

Chevalier W. E. Doherty.

Italian Cross al Merito di Guerra.

Lt. W. E. Sommerville.

* Pro patria mortuus.

Italian Military Medal for Valour.

Flt.-Cmdr. H. B. Bell.
 Capt. H. H. Burnham.
 Lt. W. G. McGhie.
 Lt. W. E. Sommerville.

Italian Ribbon.

Lt. N. Cacciapuoti.

Russian St. George's Medal.

Maj. W. H. G. Aspland.

Russian Cross of St. George.

*Lt. C. P. Cotton.
 Pte. H. Turner.

Order of St. Vladimir.

Maj. W. H. G. Aspland.

**Russian Order of St. Stanislaus,
with Swords.**

Lt.-Col. J. J. Creelman.

Belgian Croix de Guerre.

Lt. N. H. Daniel.
 Lt.-Col. H. J. Dawson.
 Sqdr. Cmdr. R. H. Jarvis.
 Lt.-Col. C. H. Mitchell.
 Lt.-Col. W. N. Moorhouse.
 Maj. J. H. Wood.

Belgian Order of Leopold.

Lt.-Col. C. H. Mitchell.

Montenegrin Order of Danilo.

Brig.-Gen. V. W. Odium.

Meritorious Service Medal.

Cpl. A. Hampson.
 Sgt. W. C. Milne.

K.C.V.O.

Gen. Sir E. S. Worthington.

1914 Star.

Lt.-Col. R. S. Pentecost.

C.B.E.

Col. R. D. Rudolf.

M.B.E.

Lt.-Col. W. J. Bentley.
 Capt. T. B. Colley.
 Maj. O. K. Gibson.

O.B.E.

Lt.-Col. A. U. De Pencier.
 Lt.-Col. C. D. H. McAlpine.
 Lt.-Col. T. E. Perrett.
 Maj. J. H. Wallace.

Royal Red Cross.

N. Str. I. W. Constantinides.
 Matron E. B. Ridley.

Serbian Royal Red Cross Medal.

Col. H. G. Barrie.

Mentioned in Despatches.

Maj. P. P. Acland.
 Lt.-Col. C. W. Allen.
 Lt. J. B. Allen.
 Lt. F. Alport.

Mentioned in Despatches*(Continued)*

Lt.-Col. J. A. Amyot.
 Capt. S. R. Armour.
 Capt. G. W. Armstrong.
 Capt. J. E. Barry.
 Flt.-Cmdr. H. B. Bell.
 Capt. H. T. Bell.
 Capt. J. J. Bell.
 Capt. T. H. Bell.
 Capt. A. W. Bentley.
 Lt. H. H. Betts.
 *Sgr. W. A. Bishop.
 Staff Capt. G. G. Blackstock.
 *Lt. J. G. Bole.
 Maj. C. A. Boone.
 Pte. A. J. Bromley.
 Maj. E. P. Brown.
 Lt. G. W. Brown.
 Maj. P. G. Brown.
 Col. H. Bruce.
 Capt. H. Buck.
 Lt. F. W. Burnham.
 Capt. H. H. Burnham.
 *Capt. S. S. Burnham.
 *Lt.-Col. D. F. Campbell.
 Capt. C. R. Carrie.
 Capt. J. R. L. Christian.
 Brig.-Gen. J. A. Clark.
 Lt.-Col. F. F. Clarke.
 Capt. W. A. Clarke.
 *Lt. M. A. Clarkson.
 Maj. G. A. Cline.
 Maj. D. J. Cochrane.
 Lt.-Col. F. T. Coghlan.
 Capt. E. F. Coke.
 Lt.-Col. J. J. Creelman.
 Capt. G. McI. Dale.
 Lt.-Col. J. E. Davy.
 Lt.-Col. H. J. Dawson.
 Maj. W. W. Denison.
 Capt. A. U. De Pencier.
 Capt. D. C. Dick.
 Capt. H. H. Donald.
 Lt. G. A. Downey.
 Maj. A. E. Duncanson.
 Maj. A. W. M. Ellis.
 Brig.-Gen. J. F. L. Embury.
 Lt.-Col. T. C. Evans.
 Maj. J. E. M. Fetherstonagh.
 Maj. H. W. A. Foster.
 Surg.-Gen. J. T. Fotheringham.
 Maj. A. Foulds.
 Lt.-Col. J. J. Fraser.
 Maj. T. Gibson.
 Maj. W. O. Gibson.
 Capt. A. J. Gilchrist.
 Maj. R. M. Gorssline.
 Maj. G. B. Gordon.
 Lt. R. W. Gouinlock.
 Lt.-Col. G. Gow.
 Capt. D. A. L. Graham.
 Flt.-Lt. E. R. Grange.
 Maj. E. A. Greene.
 Maj. W. R. Greene.
 Maj. G. G. Greer.
 Lt. C. M. G. Grier.
 Lt.-Col. J. N. Gunn.
 Lt. R. D. Hague.
 Maj. J. E. Hahn.
 Capt. G. C. Hale.
 Flt.-Cmdr. T. D. Hallam.
 Capt. F. S. Harcourt.
 Capt. A. Harden.
 Lt.-Col. E. B. Hardy.

Mentioned in Despatches.

(Continued)

Capt. W. E. Harris.
 Capt. F. R. Hassard.
 Lt.-Col. W. B. Hendry.
 Capt. W. D. Herridge.
 Maj. H. F. H. Hertzberg.
 Lt. P. R. Heywood.
 Gnr. F. B. Houston.
 Lt.-Col. J. T. Janson.
 Capt. H. B. Jeffs.
 Lt.-Col. L. E. Jones.
 Lt.-Col. D. P. Kappele.
 Maj. J. Kay.
 Sub.-Lt. H. B. Kerriush.
 *Maj. C. Keyes.
 Maj. W. E. Kidd.
 Lt. A. J. Kilgour.
 Capt. G. G. D. Kilpatrick.
 Instr. W. H. King.
 Lt. P. A. Laing.
 *Maj. J. M. Langstaff.
 Maj. J. F. Lash.
 Maj. W. H. Latimer.
 Capt. C. A. Lawrence.
 Lt.-Col. T. McC. Leask.
 Lt. N. L. LeSueur.
 Capt. A. R. Lindsay.
 Bde.-Maj. C. B. Lindsey.
 Maj. T. R. Loudon.
 Maj. A. L. McAllister.
 Capt. J. W. McBain.
 Maj. E. L. McColl.
 Lt. I. M. Macdonnell.
 Maj. K. A. McDougall.
 Maj. T. W. MacDowell.
 Maj. A. McN. McFaul.
 Maj. F. A. McGiverin.
 Brig.-Gen. C. H. Maclaren (2).
 Lt. H. J. Maclaren.
 Capt. G. A. McLarty.
 Maj. N. B. MacLean.
 Capt. R. Macnamara.
 Capt. R. R. McClenahan.
 Capt. W. S. McClinton.
 Capt. K. H. McCrimmon.
 Lt. W. G. McGhie.
 Maj. A. H. McGreer.
 Maj. T. H. McKillip.
 Maj. W. T. M. McKinnon.
 *Lt. H. J. McLaurin.
 Col. D. W. McPherson.
 Lt.-Col. C. S. McVicar.
 Staff Capt. G. L. Magann.
 Maj. K. A. Mahaffy.
 Lt. A. J. Malcolmson.
 Capt. F. H. Marani.
 Staff Capt. C. K. C. Martin.
 Capt. A. C. Matthews.
 Maj. D. H. C. Mason.
 Capt. A. F. Mavety.
 Capt. L. H. Mills.
 Staff Sgt. W. C. Milne.
 Lt.-Col. C. H. Mitchell.
 Capt. L. W. Moffit.
 Lt.-Col. P. J. Montague.
 Lt.-Col. W. N. Moorhouse.
 Maj. J. A. Morphy.
 Maj. L. C. Moyer.
 Maj. F. J. Mulqueen.
 Col. G. G. Nasmith.
 Lt. A. R. Neelands.
 Maj. E. D. O'Flynn.
 Brig.-Gen. V. W. Odium.
 Capt. E. H. Oliver.

*Pro patria mortuus.

Mentioned in Despatches.

(Continued)

Maj. G. M. Orr.
 Staff Capt. L. C. Outerbridge.
 Maj. C. C. Owen.
 Lt. A. C. Oxley.
 *Staff Sgt. H. H. Owen.
 Capt. T. H. Parker.
 Lt. A. E. Parlow.
 Maj. H. C. Parsons.
 Lt.-Col. J. L. R. Parsons.
 Maj. W. M. Pearce.
 Maj. W. E. Phillips.
 Capt. G. R. Philip.
 Lt. E. Philpot.
 2. Lt. H. A. Porteous.
 S. Lt. J. E. Potvin.
 Maj. A. G. Poupore.
 Lt. N. C. Qua.
 Capt. G. W. Racey.
 Capt. J. S. Reid.
 Lt.-Col. G. A. Rennie (3).
 Lt. G. F. Ritchie.
 Col. J. A. Roberts.
 Maj. D. E. Robertson.
 Maj. N. R. Robertson.
 V. A. D. C. Robinson.
 Lt. C. H. Rogers.
 Brig.-Gen. J. M. Ross (3).
 Capt. A. C. Rowsell.
 Capt. A. C. Ryerson.
 Capt. T. E. Ryerson.
 Lt. C. G. Saunders.
 Col. W. A. Scott.
 *Lt. W. G. S. Scott.
 Lt. G. T. Scroggie.
 *Lt.-Col. S. S. Sharpe.
 Maj. C. Sifton.
 *2. Lt. C. Simpson.
 *Maj. J. D. Simpson.
 Maj. I. MacI. R. Sinclair.
 Lt. W. R. Skey.
 Maj. A. E. Snell.
 Capt. E. C. Southey.
 Capt. A. C. Spencer.
 Bdr. G. T. Spriggs.
 Lt. N. Stansfield.
 Col. R. H. Steacy.
 Lt. W. A. Steele.
 Maj. G. S. Strathy.
 *Capt. E. R. Street.
 Capt. S. J. Streight.
 Capt. C. J. S. Stuart.
 Lt.-Col. D. M. Sutherland.
 Maj. W. G. Swan.
 Maj. H. W. Tate.
 Maj. A. E. Taylor.
 Maj. J. H. Thornley.
 *Maj. G. E. Vansittart.
 Maj. J. H. Wallace.
 Staff Capt. H. M. Wallis.
 Capt. W. C. Walsh.
 Capt. C. F. Watt.
 Capt. D. E. S. Wishart (2).
 Lt. H. Webster.
 Capt. J. G. Weir.
 Lt. H. S. Weldon.
 2. Lt. A. R. Wells.
 Lt. A. M. West.
 Pte. E. D. Wilkins.
 Maj. A. D. Wilson.
 Lt. H. K. Wyman.
 Lt. L. L. Youell.
 Capt. H. G. Young.
 Lt.-Col. T. W. H. Young.

Mentioned for Valuable Services.

Maj. H. R. Alley.
 Lt.-Col. J. A. Amyot.
 Col. J. A. Armstrong.
 Brig.-Gen. E. C. Ashton.
 Lt.-Col. W. J. Bentley.
 Capt. G. C. Bonnycastle.
 Lt.-Col. C. Brown.
 Lt.-Col. C. G. Bryon.
 Maj. F. S. Burke.
 Lt.-Col. I. H. Cameron.
 Lt.-Col. O. A. Cannon.
 Col. H. R. Casgrain.
 Lt.-Col. G. Chambers.
 Lt. H. W. Cheney.
 Lt.-Col. D. A. Clark.
 Maj. H. A. Croll.
 Spr. W. P. Dale.
 Sgt. F. Gahan.
 Maj. O. K. Gibson.
 Col. P. G. Goldsmith.
 Capt. T. F. Graham.
 Maj. W. R. Greene.
 Capt. W. T. Hackett.
 Capt. G. C. Hale.
 Capt. H. C. Hall.
 Maj. R. M. Harcourt.
 Adj.-Gen. W. E. Hodgins.
 Capt. J. E. Holmes.
 Lt.-Col. G. G. Hume.
 Maj. W. L. Hutton.
 Col. L. E. W. Irving.
 Maj. H. B. Jeffs.
 Capt. J. L. Kappelle.
 Lt. G. N. Kennedy.
 Capt. T. W. Lawson.
 Capt. O. N. Leslie.
 Ass't. Adj.-Gen. C. S. MacInnes.
 Maj. C. D. H. McAlpine.
 Maj. S. H. McCoy.
 Brig.-Gen. A. McDougall.
 Lt.-Col. G. F. McFarland.
 Lt.-Col. W. T. M. McKinnon.
 Capt. G. H. McLaren.
 Lt.-Col. S. P. McMordie.
 Col. D. W. McPherson.
 Capt. E. D. Madden.
 Lt.-Col. A. A. Magee.
 Capt. F. R. Mallory.
 Maj. F. F. Montague.
 Capt. G. V. Morton.
 Maj. E. A. Neff.
 Cpl. C. E. Ogden.
 Lt.-Col. K. D. Panton.
 Capt. L. A. C. Panton.
 Lt.-Col. J. A. V. Preston.
 Lt.-Col. A. Primrose.
 Lt.-Col. R. Raikes.
 Capt. L. M. Rathbun.
 Lt.-Col. G. S. Rennie.
 Maj. J. R. Roaf.
 Col. R. D. Rudolf.
 Maj. B. J. Saunders.
 Col. W. A. Scott.
 Capt. L. P. Sherwood.
 Capt. H. A. Simmons.
 Maj. A. A. Smith.
 Capt. S. C. Snively.
 Lt.-Col. C. L. Starr.
 Capt. C. W. Waldron.
 Capt. R. R. Wallace.
 Capt. D. D. Wilson.
 Gen. Sir E. S. Worthington.
 Lt. H. K. Wymar.

Future Relations Between the United States and Canada

BY ROLAND G. USHER, Author of "Pan-Germanism," etc.
Professor of History, Washington University, St. Louis, U.S.A.

I AM venturing to take this opportunity of writing once more for the VARSITY MAGAZINE SUPPLEMENT of the University of Toronto to say some things very near to my heart about the relations in the future between the United States and Canada. First, and foremost, it seems to me vital that there should be, after the war, extended and permanent co-operation between the United States and the British Empire. Not with England as such, nor with Canada alone, but with the British Empire as a whole. The great Anglo-Saxon race has become conscious of its essential unity and

of any considerable number of men in this country of any sort or type. There is at present, and there will be in the future, no movement in the United States to annex or absorb Canada, to incorporate her into our federal union or to dominate or control her affairs in any way. No such feeling is being created by this war and no such feeling existed in the past in the minds of the general public or of any section of men of real importance. Newspaper gossip, the work of irresponsible and ignorant men who said what they did not understand, explains such evidence as there is.



U.S.A. DELEGATES AT HART HOUSE TO INSPECT U. OF T. VOCATIONAL TRAINING METHODS



GROUP OF U.S.A. VOCATIONAL TRAINING DELEGATES AT MINING BUILDING WITH DEAN ELLIS

that fact has become the basis of its political relations in the future.

The sentiment in favour of such co-operation is, I think, growing by leaps and bounds in the United States. I have watched that growth with delight and have done what little in me lay to foster it. It seemed to me at one time that a situation of the utmost danger was approaching and I feared that the United States might attempt to maintain the old and mistaken policy of isolation; might refuse to follow the interests and tendencies of the present in a vain attempt to maintain the policies of the past. Fortunately the President was a man of insight, with a deep comprehension of the verities of statesmanship, and has avoided the pitfall which seemed likely at one time to develop controversies of a most regrettable nature between the United States and the British Empire. There have been in Canada at various periods, more or less recent, vain apprehensions and fears as to the character of America's intention. Some have insisted, no doubt honestly, that the United States wished to annex Canada. I have had some experience with students and statesmen and I have yet to see evidence to authenticate any such opinion on the part

There has been and is still in certain sections of this country of the United States traces of the anti-British feeling of the early nineteenth century which I heartily deplore, but it seems to me indubitably true that the new co-operation which I feel will be the great factor in the future in the relations between the United States and the British Empire will destroy that anti-British feeling, largely because we shall co-operate not with the England, with which our forefathers fought, but with the British Empire as a whole, of which Canada is a great and significant part. The cousinly relations and good-fellowship,

the thorough understanding which has distinguished the relations between the United States and Canada for so many decades, will clarify the situation, disarm the opposition in the United States which might otherwise form if co-operation were attempted with England alone, or with the United Kingdom alone. The part, therefore, which Canada may play in the future of the British Empire and its relations with the United States, will be commanding and significant and it may be decisive. Her attitude toward the United States may determine our attitude toward the British Empire.



U.S.A. DELEGATE INSPECTING BABY TRACTOR.

Universities of the United Kingdom and the War

By DR. ALEX HILL

Principal of Southampton University College; formerly Vice-Chancellor of the University of Cambridge; Honorary Secretary of the Universities Bureau of the British Empire

MEN, knowledge, buildings, and equipment!

The statement that without the aid of her Universities Britain could not have faced the War with any prospect of success is no figure of speech.

Britain was unprepared. The army essential to a great continental conflict was non-existent. Almost equally paralysing, as was recognized before the end of the first year, Britain, in pleasant "laissez faire" fashion, had been content for years to let her present enemies supply her with many products without which her economic life could not be maintained, nor war successfully waged under modern conditions.

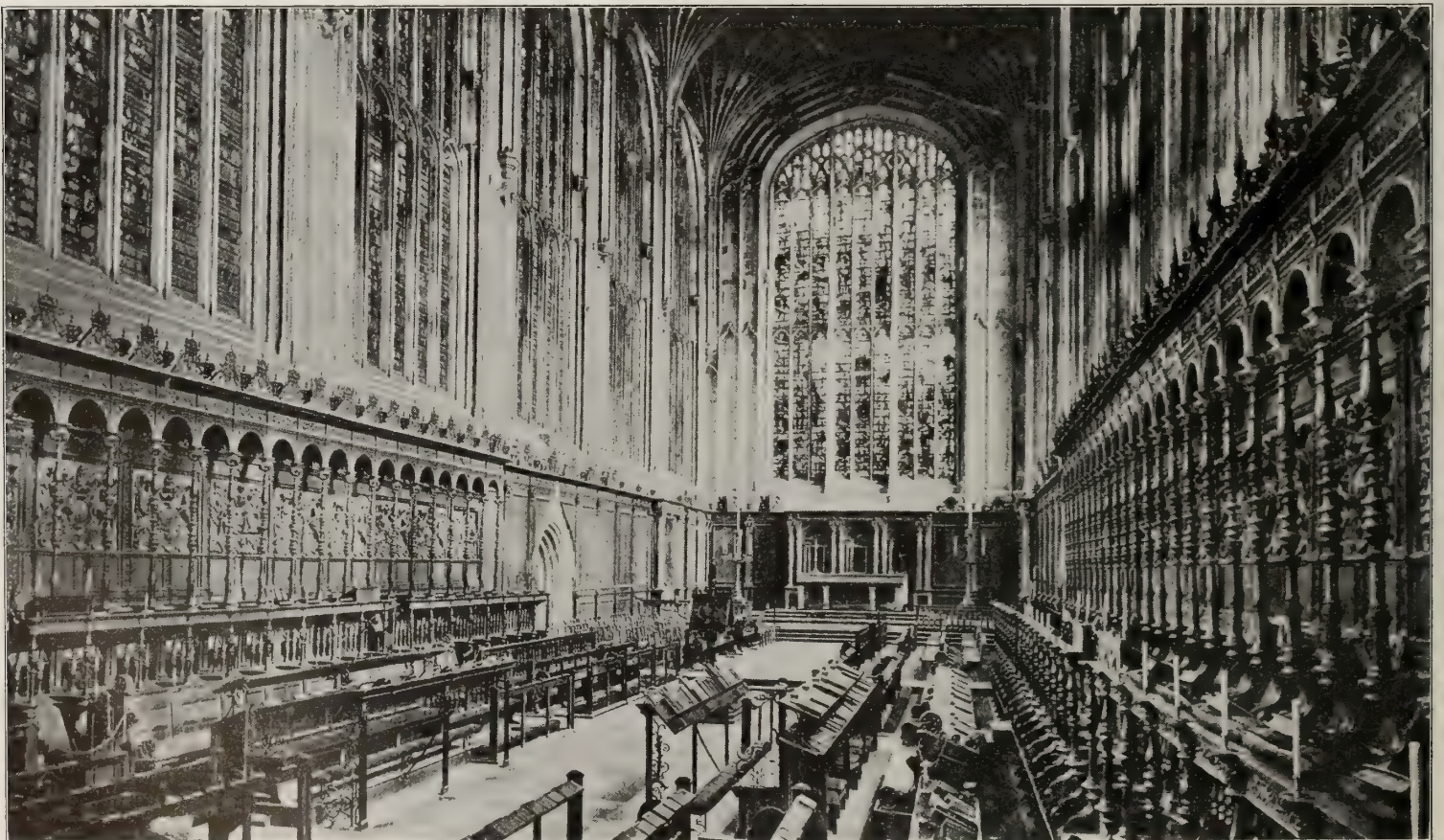
The first requisite was men, especially men fitted by education and training to command the miners and mill-hands who rushed into the fighting ranks. How loyally the Universities responded to the cry for men has been expressed by Mr. H. A. L. Fisher, the President of the English Board of Education:

"The War came to us, as you know, very suddenly. It was in the month of August 1914, in the depth of the long vacation, a time when the young University men of the country were scattered abroad and in the enjoyment of their summer holidays. At the first word of warning they streamed in to offer their services to the country. Their spirit was so simple, so unaffected, so devoid of any pretence or ostentation; it was marked by so much high spirit and boyish good-humour—that it seems a kind of impertinence to allude to a business conducted with so much natural modesty. Nobody thought that he was doing anything specially great or noteworthy, or if he thought so he was careful to keep his thoughts to himself. It was not an easy decision to make—this resolve to abandon all the pleasant prospects of an easy and honourable career for the chance of wounds or death; but the young men of our Universities made the choice for the most part instantaneously, and the rest of the country followed."

Less important than men, yet also indispensable, has been the contribution of the Universities in knowledge and skill needed to meet conditions unprecedented in the experience of the country. Again to quote from Mr. Fisher:

"This war, in a degree far higher than any conflict in the whole course of history, has been a battle of brains. It has been a war of chemists, of engineers, of physicists, of doctors. The Professor and Lecturer, the Research Assistant, and the Research Student, have suddenly become powerful assets to the nation. Whatever University you may choose to visit, you will find it to be the scene of delicate and recondite investigations, resulting here in a more deadly explosive, there in a stronger army boot, or again in some improvement to the fast advancing technique of aerial navigation. Even the teachers of subjects apparently so remote from the practical world as Archaeology and Ancient History find their new and proper spheres of activity. A lecturer in Hellenistic Greek is sent out to Salonika to interpret for the British forces, an ancient historian is impounded by the War Office for his singular knowledge of the geography of Asia Minor, former scholars of the British School at Athens become suddenly involved by reason of their peculiar knowledge of the Levant, philosophers and poets leave the quiet groves of Academe to blockade Germany or to shepherd neutral trade from the busy centre of a Government office in Whitehall."

It would indeed be difficult to think of any form of activity connected, however remotely, with war, in which the Universities have not been called upon to play their part. Troops have been sent to many different parts of the world; men have been massed together in unprecedented numbers; parasites borne by flies and mosquitoes, by rats and lice, have had such opportunities of mischief as have not been presented to them since the causes of their maleficence became known to science.



KING'S COLLEGE CHAPEL, CHOIR EAST, CAMBRIDGE

Zoologists were wanted for Gallipoli, for Egypt, for tropical Africa, to study the habits of these animals with a view to their destruction. Almost equally unexpected has been the call for constructive measures in Mesopotamia and elsewhere, to turn the desert into a garden of plenty, providing food for man and beast. The staffs of the Agricultural Departments of certain universities have been mobilized for this work of reclamation behind the fighting line—work which has been extraordinarily successful and will be permanently beneficent in its results.

The problems presented for solution to the Engineering, Physical, and Chemical Laboratories of the Universities have been, as Mr. Fisher hints, innumerable. They have concerned the making of guns, range-finders, aeroplanes, and other instruments of war, the composition of high explosives and the production of their ingredients, the devising of smoke-emitting shells, poisonous gases, and all the other devilments of modern warfare. Astronomers have given their minds to the planning of star-maps which would enable the pilots of aeroplanes to find their way to their objectives and home again. Meteorologists have mapped the winds, and advised the armies of the air of changes to be avoided or opportunities to be seized. It would be impracticable to enumerate a tithe of the problems dealt with. We must wait until the war is over before attempting to complete the list. Many isolated illustrations come into the writer's mind. He thinks of one of the most distinguished of British astronomers devoting weeks of time to the drawing of diagrams which enabled the various craft concerned in the blocking of the entrances to the Bruges Canal to find their way to their respective stations behind the screen of smoke. He thinks of a Senior Wrangler who has worked for many months on the perfecting of a gyroscopic compass for the use of air-men; and of another who has thought out a sighting-device to make their aiming sure.

Most of the British Universities have placed some of their great buildings at the disposal of the War Office, especially for use as hospitals. In particular the new university buildings at Birmingham, which occupy a site of 40 acres, the buildings of the Armstrong College of Science at Newcastle, and the new buildings of the University College of Southampton, were given up to hospital purposes immediately after the outbreak

of War. The universities have handed over their residential hostels for the same purpose. Wherever there is a medical school, the staff is dressed in khaki, and very large numbers of the women students are employed as nurses, or as auxiliaries with the forces or in the bureaux. The quadrangles of Oxford and Cambridge present a spectacle such as never in all the centuries has hitherto been seen. Of undergraduates there is still a sprinkling, either men of colour, or men whose appearance proclaims them as unfit for military service. The younger "dons" are conspicuously absent. All of them, if not serving with the Colours, are helping to meet the strain on one or other of the Departments of State occupied with the war. The writer was greeted by the Vice-Master of Trinity (Cambridge) with the question "Which are you?" to which he added "All my friends are either Army or Navy, unless they chance to be in the Foreign or some other Office". Grey heads alone, saving the sparse undergraduates, are to be seen beneath college caps. Yet Cambridge at the time was swarming with life, literally teeming with cadets, mostly non-commissioned officers undergoing a course of intensive training before being returned, with commissions, to the Front. Blue uniforms of nurses were almost as noticeable as khaki, for vast hospitals have been established at each of the ancient seats of learning on what in peace times were playing fields, and some of the colleges have been turned into homes for nurses. The universities in the provinces and in Scotland have more women students than men.

And now, after four years of war, the Universities have been called upon to extemporise measures to make good its ravages. Their technological laboratories and class-rooms are filled to their utmost capacity with officers and men, who have suffered disablement compelling them to seek training for some occupation other than that in which they were engaged before the war. The depleted teaching staffs are busy with supplementary and intensive courses adapted for a new category of eager students.

War, which has destroyed and paralyzed, has proved the most powerful of stimuli. Never before in their history have the Universities been so active as they are at present; never before has so strenuous an effort been made to find or to fit men who can rise to the full measure of their opportunities.



KING'S COLLEGE CHAPEL, CAMBRIDGE

The University Hospital Supply Association

THE University Hospital Supply Association entered last March on its fourth year of war work. During this period of three years the work-rooms of the Association have been the centre for Red Cross Work in the University and have attracted to themselves many workers not otherwise attached to the University. Both men and women undergraduates have co-operated splendidly with the ladies of the Staff in making the work a success. Contributions in money have come from various student bodies, the most notable of these being a total of \$4,000 from the Students Administrative Council, making a grand total of about \$8,000 contributed by the Council from the proceeds of the VARSITY WAR SUPPLEMENT. One cheque for \$2,000 was received from this source just at the right moment to enable the Committee to purchase a large quantity of wool before prices were raised, thus making the most of our funds. This ability of the Association to buy in large quantities and at any moment when an opportunity comes for making an advantageous purchase is one of the features of the Association which justifies its existence. There are certain staple articles of which next to the Canadian Red Cross Society, the U.H.S.A. has been the largest buyer in Canada. It is therefore most encouraging to the Committee to know that it has the support of the Student body of the University.

The annual reports of officers and committees for 1917-1918 show a very satisfactory state of affairs. The total receipts from March 1915 to October 24th, 1918, were \$116,785.67, making approximately an average of \$2,715 a month. The expenditure for twelve months from the last Annual Meeting was \$38,097.47, and the receipts for the year \$28,268.28. The amount of material on hand at the beginning of the season's work is unusually large though the amount in the treasury is not large. The Finance Committee have been very active in endeavouring to increase the revenue of the Association.

The Work Committee is still, through the courtesy of the Librarian, housed in a spacious room in the upper part of the Library Building. Several motor machines and an electric cutting machine have been added to the plant here during the course of the year. It is hoped that the cutting machine will make possible a saving of several hundred dollars annually.

After a year's inaction the Committee for Surgical Supplies resumed work on the 15th November, 1917, at the special request of Col. Hendry, O.C. No. 4 Canadian Military Hospital at Basingstoke. Notwithstanding the delay caused by the non-arrival of materials, the Committee succeeded in accomplishing a large amount of work, about 34,000 articles having been shipped in addition to 3,950 articles made at the special request of the Canadian Red Cross Society from materials

supplied by them. This Committee is now working in conjunction with the University Women's Club at sphagnum moss dressings for the C.R.C.S.

The Purchasing Committee reports a steady rise in the price of materials of all kinds. It is therefore gratifying to find that the activities of the Association have not in any way been curtailed. In order to ascertain whether we were making our purchases in the most economical way, a small advisory committee was appointed and it was most satisfactory to learn that in almost every line our materials were being bought as close as possible to cost price.

The Report of the Packing Committee for the year shows a total of 104,052 articles shipped. Among these are included 29,267 handkerchiefs, 7,570 suits of pyjamas, 11,426 pair of socks of which 2,697 pair went to the C.R.C.S., 8,477 pair to the Canadian Field Comforts Commission at Shorncliffe and a special donation of 252 pair to the Secours National. The work-rooms have been very much more productive in the past twelve months than since the initial drive when the equipment was prepared for our own Hospital.

The main work of the Association continues to be divided between the workers in the Library Building and those who take out materials and return to us the finished articles. The number of individuals and groups of individuals applying to us for materials would increase even more rapidly than it does were it possible to supply the demand. The economical value of this arrangement is apparent. Owing to our large purchasing capacity \$1,000 is made to buy much more material than it could do if expended in small sums by a hundred different organizations. Each of these auxiliary societies contributes to our funds according to its means though seldom to the full value of materials received.

The special appeal for Christmas stockings from the Red Cross Society has come to the Association each year. In 1917 the number contributed by the Association was 125 and in 1918 we sent 150 for "Tommies" and 50 for nurses. Various special calls from the Emergency Department of the C.R.C.S. have met with a prompt response from the work-rooms.

One very important change has taken place in the Executive Committee, namely in the office of Treasurer. Mrs. F. N. G. Starr who has held the treasurership since the inception of the work was obliged to resign and her resignation was accepted with genuine regret. Fortunately Mrs. W. A. Parks has been prevailed upon to take the vacant office.

The policy of the Association remains the same as always: to be prepared at any time to answer any call from No. 4 Hospital and in the meantime to send the whole output of the work-rooms to the C.R.C.S.



AN OUTDOOR LECTURE AT VARSITY



SCHOOL OF MESSAGE, U. OF T.



GIRL GRADUATES LEAVING THE MAIN HALL IN CONVOCATION PROCESSION

Commencement Day, 1918, University of Toronto

By D. R. KEYS, M.A.

Professor of Anglo-Saxon

"Their orators thou then extoll'st as those
The top of eloquence—statists indeed,
And lovers of their country."

THE members of the graduating class of 1918 have reason to look back on their Commencement Day as one of the most remarkable in the history of the University. For the first time a class was graduated which had throughout its whole academic course been alternately stimulated and hindered in its work by the progress of the great World War. Many of its members had gone to the front, some had returned to take their degree, others would never come back.

Such considerations alone would have given distinction to the day. But these graduates of 1918 were to have another cause of pride in their Commencement Day. Never before had two of the most distinguished official representatives of both the great Anglo-Saxon peoples stood together to receive honorary degrees from the University of Toronto. In 1861 Albert Edward had come to be enrolled as an undergraduate and to be greeted by the Hope of the Province as the Hope of the Empire. The oriental imagination of Benjamin D'Israeli was to make him a King-Emperor indeed, as his own rare tact was to create for his people the *entente cordiale* and win him the title of Peacemaker. His son, the present king, was to come with a more modest title and receive a higher distinction than his father, as he humorously remarked when getting his doctor's degree in the East Hall. But these were special occasions, as were the more recent convocations at which the American representatives, and still later Mr. Balfour, received degrees.

Democracy and individualism gave the tone to the day. The new and improved method of presenting the graduates, allowed their friends to see each individual taking the feudal oath to the Chancellor, Sir William Meredith. The audience could thus applaud the men in khaki as well as the women

medallists. It was a less demonstrative audience than usual and more sombre; on this occasion, as in the Dictionary of National Biography, there were "no flowers". Male undergraduates were conspicuously absent. Even the appearance of the Bachelors of the Science of Agriculture passed without remark. The one ripple of amusement that broke the monotony was when the Principal of University College in his fluent old-time Latin presented the Registrar as the scapegoat to carry off all the sins of omission committed by the absentees for whom he acted as proxy.

The University organist, Mr. Mouré, entertained the waiting audience before the proceedings began and greeted the procession of dignitaries with the *Marche aux flambeaux* (Guil-mant), in harmony with the flaming robes of some of the learned dons. The honorary graduates were first presented, the Earl of Reading by Sir Edmund Walker, Chairman of the Board of Governors, and the Honourable Mr. Root by President Falconer. A verbatim report of the presentation speeches follows.

SIR EDMUND WALKER

Mr. Chancellor:

I have the very great privilege to present for the degree of Doctor of Laws, *honoris causa*, His Excellency the Right Honourable the Earl of Reading, Lord Chief Justice of England, Ambassador of Great Britain to the United States of America. Lord Reading did not begin the study of law until he was twenty-four but when twenty-seven he became a Barrister of the Middle Temple. He brought to the bar an unusual knowledge of finance, which he made available in his conduct of one of the most famous trials in modern times. He moved forward in the channels of law with astonishing rapidity and force and was one of the foremost lawyers in England when quite young. He was appointed King's Counsel in 1898 and after one unsuccessful attempt he was elected to parliament in 1904 for Reading, which constituency he served until

1913. In 1910 he was knighted, became in March Solicitor General and in October, Attorney General. In 1911 he was made a Knight Commander of the Royal Victorian Order and a member of the Privy Council. In 1912 he entered the Cabinet and in 1913 he received the highest judicial appointment in England after the Lord Chancellor, that of Lord Chief Justice of England.

That the King should have sought to further honour a man who had reached the Woolsack at the age of fifty-three is readily understood, and in 1914 he was created Baron Reading of Erleigh, in 1915 Knight Grand Cross of the Bath, in 1916 Viscount Reading and in 1917 Earl of Reading.

The war searches relentlessly for men of great capacity and such a man as Lord Reading could not be left to the quiet courses of the law. Early in 1915 it was evident that the vast quantities of gold which Great Britain was securing from some overseas dominions and from some of her allies and which after reaching Canada was used to pay for munitions bought in the United States, could not be secured indefinitely, and that some

of the two great English-speaking peoples—the greatest empire and the greatest republic now happily fighting together for the liberty of the world—rests not only our confidence in a victorious conclusion of this terrible war but our assurance of peace and happiness in the years to come.

I have the honour, Mr. Chancellor, to present Lord Reading for the degree.

PRESIDENT FALCONER—

I have the high privilege of presenting to you for the degree of Doctor of Laws, *honoris causa*, the Honourable Elihu Root, formerly Secretary of War, Secretary of State, Senator of the United States, and to-day one of the greatest Americans of his time.

It is unnecessary to recount to you the details of the career through which Mr. Root has attained with distinguished success at every step his present outstanding position in the world. Suffice it to say he is recognized by his fellow-countrymen as having performed his duty in the spirit of the following



GIRL GRADUATES PREDOMINATE AT THE FOURTH WAR CONVOCATION

of the purchases made must be paid for by loans floated in the United States. In September of that year Lord Reading and others, including the representative of France, came to the United States on such a mission and succeeded in obtaining 500 millions of dollars for Great Britain and France together. Important as was this loan financially it was but a part of more significant events. Two days before the dinner of the Pilgrim Society celebrating the success of the Anglo-French loan, the late Mr. Joseph Choate received an honorary degree in this hall along with other distinguished Americans. At the moment none of us ventured to guess whether Mr. Choate would say anything regarding the attitude of his country towards the war, but I need not remind you, Mr. Chancellor, that he made the greatest pro-ally speech delivered by any American until that time. At the Pilgrims' dinner he made the same speech embroidered with some new opinions regarding our enemies, and it is not too much to say that Lord Reading's response and Mr. Choate's speech, taken together profoundly affected opinion in the United States in favour of the Allies. Lord Reading's admirers in Canada were therefore greatly pleased when he was appointed Ambassador of Great Britain to the United States. This is not the time to enlarge upon the duties of his high office further than to say that no ambassador in the history of the world has ever had a more important task. Upon the complete and harmonious working

incident. Mr. Root tells us in 1915 that "sixteen years ago in the month of July having just finished the labours of the year and gone to my country home, I was called to the telephone and told by one speaking for President McKinley, 'The President directs me to say to you that he wishes you to take the position of Secretary of War.' I answered, 'Thank the President for me, but say that it is quite absurd, I know nothing about war. I know nothing about the army.' I was told to hold the wire, and in a moment there came back the reply, 'President McKinley directs me to say that he is not looking for anyone who knows anything about war or for anyone who knows anything about the army; he has got to have a lawyer to direct the government of these Spanish islands, and you are the lawyer he wants'. Of course, I had then, on the instant, to determine what kind of a lawyer I wished to be, and there was but one answer to make, and so I went to perform a lawyer's duty upon the call of the greatest of all our clients, the government of our country."

In history Mr. Root will be remembered with especial regard by both branches of the English-speaking race for the compelling power with which almost from the beginning he placed before his fellow-countrymen the issues of the present war by addresses which for masterful reasoning and prophetic eloquence will remain among the American classics. He saw at the moment that the texture of ordered society and inter-

national law was being slashed irretrievably by the sword of the Teutons.

"If the nations were to be indifferent to the first great concrete case for a century of military power trampling underfoot at will the independence, the liberty and the life of a peaceful and unoffending people in repudiation of the faith of treaties and the law of nations and of morality and of humanity—if the public opinion of the world was to remain silent upon that, neutral upon that, then all talk about peace and justice and international law and the rights of man, the progress of humanity and the spread of liberty is idle patter. . . . There come times in the lives of nations as of men when to treat wrong as if it were right is treason to the right."

His latest triumph was in the fulfilment of his function as Ambassador Extraordinary and leader of the Special Diplomatic Mission of the United States of America to Russia in 1917. To the people of Russia he said "You do not walk alone upon the pathway of self-government; we have faith in the triumph and perpetuity of Russian freedom". He returned

the audience was by no means exhausted when the Earl of Reading, formerly Liberal M.P. for that good old English town, and now Lord Chief Justice of England, rose to address the assembly. He brought no message he told us, but the man himself was a living evidence of the progress of democracy in the old land. Mr. Root, by way of contrast, was very clear and positive in his message from the great republic which is to make the world safe for democracy. Never was a more important or more welcome pronouncement made in Convocation Hall. Both the addresses deserve the study of University alumni throughout the Dominion. An exact report, omitting, however, the marks of applause which punctuated almost every sentence, is given below.

THE EARL OF READING: "Mr. Chancellor, may I be permitted to thank you and this University for the high honour conferred upon me to-day. I thank you more particularly because I recognize that your intention is, if I may be permitted to say so, not so much to honour me as the cause which I represent in the United States as the representative of the



BARON READING AND MR. ELIHU ROOT GOING TO RECEIVE DEGREES FROM UNIVERSITY OF TORONTO, 1918

optimistic as to Russia, convinced that the kindliness of the people, their capacity for self-control, their extraordinary ability for united action and their noble idealism would lead in the better way towards higher things. If, as we are beginning to hope, the true Russia is reasserting herself, not a little of the credit will be due to the tact and faith which Mr. Root has consistently displayed towards her in her time of deep agony.

I have said more than enough, but to an academic audience one further word will be an additional justification for his receiving this degree. Mr. Root is a true and loyal university man, one of the wisest counsellors of his old College of Hamilton, New York, as well as of foundations which promote the welfare of a continent-wide constituency.

When the new distinguished alumni had signed the roll, the other graduates 415 in number were presented. Especial applause was bestowed on Col. Nasmith, who had won by examination the Diploma of Public Health. After the degrees were conferred the President made a short address in reference to the prize winners, and then read the names of members of the University who had fallen since the last Commencement, while the audience rose as a mark of respect.

These proceedings had taken a little over an hour, so that

British Government. I realize further that you have intended by this mark of honour to endorse to the fullest extent of your capacity the great cause in which you here and we throughout the British Empire are now engaged.

I notice, Mr. Chancellor, the felicity which has characterized your selection to-day—not in myself because I am the representative of our King, but in associating with me the distinguished representative of the United States, the Honourable Elihu Root. I regard it as especially appropriate, and, indeed, I am but giving effect to your own selection, when I say that it is your view that we should have here present to-day not only Great Britain, but also the United States. It signifies in a marked degree the association between us at the present moment, when we everywhere throughout the Dominions of the British Empire, closely linked as we are now with the great English-speaking people of the United States of America, stand together for the first time in the history of our Empire and of the United States of America fighting for one great cause, having forgotten all the old differences between us, having shed all past prejudices, realizing that we are both champions of democracy and of justice and liberty, and that in that way we can stand together—aye, and stand to the end, until we have vindicated the cause for which we are fighting.

Mr. Chancellor, I appreciate again to the full this honour when I realize that this seat of learning, which is part of the life of Canada, has radiated those wider aspects of thought, those broader views of life which help men to solve the great problems of the present day and which enable them to take a lead in those loftier views of the life which we are accustomed to designate by the name of patriotism, which enable men by their better-trained thought to see the inner meaning of the struggle which is now proceeding and to understand that the ordinary views of life no longer can prevail, but that the nobler aspect of it is called into existence in the face of the gravest realities which any of us have ever known. But the call is and has been for men to sacrifice all that may be necessary—aye, and let me add, in case of misunderstanding, that it is a call equally to women, and has been responded to with the same devotion and loyalty by them.

At this moment, Mr. Chancellor, I recall the names of some who have been in this University. Looking to the past I remember Edward Blake. He was a great lawyer in my

I will not trust myself, Mr. Chancellor, at this moment, nor is this the place or the opportunity to speak at length of what Canada has done, but I should be false to every thought that is in me, I should, I believe, not be representing our own people and the Sovereign of all of us if I did not say that it is a pride to us to know that Canada has been heart and soul with us throughout this great war, and Canada is indeed a jewel in the diadem of our Empire our democracy. our freedom.

Mr. Chancellor, I would add but one word, and that is that in dealing with the problems after the war this seat of learning and all the training that will be given will help in their solution. They are great problems and they will have to be dealt with. But they have also this one great advantage, that when the war is ended, when peace has come—the only peace that we will ever contemplate—the only peace that we will know, when victory has at last resulted for our cause, for justice, for liberty—and when we set to the work of reconstruction, Mr. Chancellor, I can see on the horizon before us much which



VARSIY'S RETURNED SOLDIERS AT CONVOCATION

country after he had left Canada, and to me he was one of those men to whom I looked up and revered as a young man at the bar. I think also of one of your graduates with whom I have been closely linked during this war, and that is Sir Thomas White, Minister of Finance of the Dominion. It has been my privilege not only in my present capacity but in the past to have had much to do with your Dominion Government, and it is my pride to recollect how well we have been able to work together for the common cause. May I just give one parting word to two who have been in my country taking their part in the House of Commons and elsewhere in the work of the war? One is Sir Gilbert Parker and the other is Sir Hamar Greenwood. Both of them have been associated with all the duties of war, and I would therefore not like to pass over their names in addressing you to-day, Mr. Chancellor.

I have no message in particular to give you; you have no message to give me. We stand together without the necessity of messages. The roll which has been called to-day of the fallen last year, the number of men not only from this University, but outside, the hundreds of thousands of your Canadians who went abroad to fight for the Old Country the moment the emergency came, need no message from me and need send no other message than that. All honour to them, all thanks may I be permitted to give to Canada and to those men.

baffles all description. I can see all humanity rising upon these liberties, because I see on the horizon not only Canada, Australia, New Zealand, South Africa, India—the whole British Empire—but I see associated with it all the English-speaking peoples of the world—each with our traditions, with our ideals, with our views of liberty, with our determination to secure justice, with our regard for the weak, with our desire to protect the oppressed. All this I can see, Mr. Chancellor, not as a dream but as a reality, which is as certain to come as victory in this war, and that together, associated as we are in this war, we shall be able to achieve benefits for humanity which baffle all imagination and all description, and which will always have in mind the bettering of the condition of the peoples throughout the world and the securing of a just and lasting peace for all civilization."

THE HONOURABLE ELIHU ROOT: "Mr. Chancellor, it ill becomes one coming from your sister nation south of the border to use many words beyond expressing, as I do now, my high appreciation and sincere thanks for the honour which you have conferred upon me to-day in accepting me into the company of the learned doctors of this great University, and in accepting me in the same class with that distinguished and brilliant man who is at once Lord Chief Justice of England and the Ambassador of Great Britain to the United States.

It ill becomes me to use many more words, because the past year in my own home has been a year of many words—expressions of promise, of sanguine expectation, declarations and descriptions of what was to be done, and we have but just come to the period of fulfilment. I am rather tired of talking and of hearing men talk as compared with seeing men act. And in the face of this great and noble but sad achievement pointed out by the solemn list of those who have fallen, and by a sense of the high courage and noble patriotism of the thousands who remain, one comes from a country that has but just begun, yet I hope, I believe, that the half million soldiers from the United States who are now in France and Flanders—the million and a half who, we are told, will surely be there by the close of the year—the many millions more who will be ready to increase their numbers or take their places, with all the civic strength, the wealth, the industry, the invention, the devotion of the hundred million people who are behind those soldiers, I hope, I believe, I am confident, that all these are going to stand with you and your men across the water and the men of England and Scotland and Wales—aye, and the many men of Ireland—in battle for our common liberty, until by force of arms the victory is won and the downfall forever achieved of the German beast of autocracy.

The alliance between Canada and the United States is not

country has stood up for its own rights and has had no other purpose but an honest, open, well understood purpose; therefore there was no deep suspicion, and therefore no war came.

And if peace and justice are to be maintained in this world that kind of democracy must rule the world and exclude the kind of autocracy that overran Serbia, Roumania and Belgium. The two cannot live together in the same world. The world cannot be half free and half Prussian. If you want to have a peaceful world, democracy must slay its mortal foe when and where it finds it, and now the democracies of Great Britain, and France, and Canada, and Australia, and New Zealand, and South Africa, and the United States of America, are united to make their future life possible by slaying the monster of brutality and lust for power which is called the German Empire.

That can be done only by victory. The freedom of our lives, the security of every home, of every farmer upon the great grain fields of Western Canada, of every manufacturer in the great factories of the Eastern United States, depend upon our winning this victory by force of arms.

As I saw the slender ranks of this once crowded and populous University, as I thought of the same spectacle in all the great institutions of the United States, the skeleton forces remaining in Harvard, in Yale, in Princeton, in Columbia and



HON. DR. CODY WITH DEAN ELLIS IN CENTRE OF GROUP



BARON READING AND HON. ELIHU ROOT HEADING PROCESSION

a mere co-partnership under which each is to protect the other's property. We do, we will protect the splendid buildings here and the splendid buildings there, the wealth, the peaceful homes here, the wealth, the peaceful homes there, but we are fighting for something more than that. We are the tenants in common of a greater heritage, we are the tenants in common of the same principles of liberty, the same surety of justice, the same independence of individual manhood, the same democracy. We are fighting for the indivisible common heritage when we stand side by side upon the battle line in Flanders.

Why is it that for these hundred years there has been peace along the thousands of miles of boundary between Canada and the United States? Many difficult and trying questions have arisen. There was great trouble, great feeling, over the Northeastern Boundary, over the Northwestern Boundary, over the Fenian Raids, over the Fisheries, over the Alaska Boundary, and many others. Why is it that we have always kept the peace? We are two democracies—real democracies of self-governing people, whose fundamental conception is individual liberty and universal justice—and the democracies cannot form or maintain or prosecute those sinister and concealed policies of aggrandisement, of increase of power, of extension of dominion, which characterize the autocracies of the world. No democracy can maintain or execute the kind of policy which Germany has been prosecuting during these last years for the uplifting of a great Pan-Germanic Empire to rule the world. And so on both sides of the border we have been free from suspicion of each other's purposes. Each

all the other Universities, I have been thinking: Shall not these universities which lose their life save it? Has not the new day come in education through the lessons that your young men and young women are learning in these years of war? Has our education on this Western Continent done its full duty and reached the heart of the democracy which it has undertaken to educate?

Germany has by skilfully devised and controlled education led the German people away from the high ideals that once possessed them. The great philosophers and poets, the great patriots are forgotten, and by education through universities and schools a false doctrine has been insinuated into the German mind and firmly fastened there. That false doctrine is the doctrine of the supremacy of the State and the dependence of the individual upon the State. The fundamental principle of our free democracy is the precise reverse. It is that supremacy of the individual which was asserted in Magna Charta and which has been continued in the Petition of Right and the Habeas Corpus Act and the American Declaration of Independence, which was a declaration of the independence of the individual in Great Britain as well as on the American Continent.

The fundamental principle of our democracy is the inalienable right of liberty of the individual, to secure which governments are instituted among men. It is the direct reverse, the negation of the German principle of the supreme right of the State, subordinate to which are all individual rights. We are too apt on this happy-go-lucky Continent of

ours to think little of the underlying principles of action. We are very much given to scrutinizing the action itself, determining its apparent and immediate effect for what seems to be good or ill, and pushing away all dull and prosy consideration of the underlying principles of action. We have forgotten on this Western Continent that all our system of justice is developed so that the principle of individual liberty may be subserved by government. Until a few years ago we had forgotten that liberty did not come, as the air comes, to all who choose to breathe, that justice did not come, as the light comes, to all who look towards the sky. We had forgotten that not only is eternal vigilance the price of liberty, but that eternal struggle is the price of liberty. We had forgotten that no people can continue free who do not subscribe in their hearts with all sincerity and truth to the underlying principles of freedom, and this war has come in time to save us from the sad results of that forgetfulness and indifference. Let us hope and pray for true liberty, the dignity of true independent manhood, the high capacity to suffer, to sacrifice, to die if need be for a principle, the principle that makes men free.

Mr. Chancellor, may not our great universities in the future carry on in the coming generations the lessons that we are learning to-day in that great conflict of principle in France and Flanders? May not our great universities conscientiously, assiduously, with wise forethought and judgment teach patriotism, teach love of liberty, teach true love of justice, and teach young men and young women how to serve liberty, to serve justice, to serve their country, as well as teach them Latin, Greek, mathematics and applied science? I conceive that that great mission is before the great educational institutions of this Continent, I am confident that it is, and in the future course of the University of Toronto in the performance of this high duty I hope to live long enough to feel my pride redoubled in this new and prized association with your great University."

May the splendid spirit and confidence of these two addresses prove an augury of early victory and may the Class of 1918 be able in a happier future time to add this additional element of distinction to the recollections of their Commencement Day!

The University of New Brunswick and the War

BY CECIL C. JONES, M.A., PH.D., LL.D.
Chancellor of the University

THAT the University of New Brunswick is adequately represented in the Canadian forces at the front is attested by the fact that the number of undergraduates is now not more than thirty per cent. of the number in attendance in 1914. A striking instance of the general nature of the enlistments was furnished in 1916 when all of the Arts students of the second year enlisted except one.

The first enlistments were scattered over various branches of the service. About the first of December, 1914, however, a considerable group joined the Twenty-third Battery of Field Artillery then being mobilized at Fredericton. This attracted the attention of several of our own graduates and a number of students from other Maritime Universities and the battery became known as the University Battery. With a few exceptions the non-commissioned officers were University men. Many of these have since obtained commissions in the Canadian and Imperial Artillery.

Groups of students have from time to time joined the various batteries of Siege Artillery mobilized at Partridge Island, St. John. The majority of the men left in the present year's graduating class enlisted with the Ninth Siege Battery there.

Naturally a number of Infantry Battalions raised in New Brunswick were to a considerable extent officered by University of New Brunswick men. The well-known New Brunswick Battalion, popularly known as the Fighting Twenty-sixth, the only New Brunswick Battalion to reach the front intact in the early days of the war, gained its reputation as a fighting force under the leadership of Lieut.-Col. A. E. G. MacKenzie, D.S.O., of the Class of 1902. This brave officer fell leading his men in the recent successful fighting in France.

During the past year or so the Flying Service has attracted

a considerable number of men. The University is also represented in the Tanks.

The efficiency of the men from the University of New Brunswick is proved by the following list of those whose work has been rewarded by military honours:

C.M.G.—Col. Murray McLaren, Lt.-Col. S. H. McKee.
D.S.O.—Lt.-Col. A. E. G. MacKenzie, Lt.-Col. A. N. Vince, Major T. E. Powers, Lt.-Col. W. H. Harrison.
M.C. with Bar—Major G. Roland Barnes.
M.C.—Lieut. B. W. Harmon, Major E. Raban Vince, Capt.

J. D. Hickman, Lieut. Norman MacKenzie, Lieut. Frank Armstrong, Lieut. J. H. A. L. Fairweather, Capt. Frank H. Tingley, Capt. M. V. Maxwell, Lieut. Brydone Millidge, Capt. Norman McLeod, Capt. A. N. Carter.

Military Medal—Chauncey D. Orchard, Charles R. Townsend, Herbert A. deVeber, George B. Alexander.

D.C.M.—Lieut. B. W. Harmon, Lieut. Warren P. Loggie.

Russian Order of St. George—Lieut. B. W. Harmon.

Russian Order of St. Anne—Major E. C. Weyman.

The list of those who have spent their lives in the cause is as follows: Ralph Markham '98, John H. Sweet '99, George P. O. Fenwick '02, A. E. G. MacKenzie '02, Charles M.

Lawson '03, Edward B. McLean '07, Locksley McKnight '09, J. Talmage Haining '10, John T. Gibson '10, Melbourne R. C. Smith '10, Ralph B. Clarke '11, John F. Dolan '11, Burdette W. Harmon '12, Jack C. Hanson '13, Robert K. Shives '13, Chas. E. Freeze '14, Purves P. Loggie '14, John I. Morrison '14, J. B. Macdonnell Fraser '15, Thomas J. Gorman '15, John B. Hipwell '15, James C. Ketchum '15, Hubert P. Osborne '16, L. Stanley Edgett '17, Stewart E. Kitchen '17, Austin B. Murray '17, Frederick D. Foley '18, A. B. Caldwell '18.



UNIVERSITY OF NEW BRUNSWICK



UNIVERSITY OF TORONTO MEN IN THE 4TH UNIVERSITIES COMPANY, P.P.C.L.I. IN TRAINING AT MCGILL UNIVERSITY

The Canadian Universities and the War

(By courtesy of the "Round Table" and Macmillan Co.)

CANADA holds an honourable position in regard to higher education. Of her population of 8,000,000 there were before the war 14,000 students in attendance at the score of universities and colleges of the Dominion, in most of which women are registered on equal terms with men. Though the enrolment in some of these institutions is small, the leading universities with great professional faculties rank among the largest and best equipped in the Empire. Not the least hopeful promise for the future is to be discerned in the rapid and healthful growth of the recent provincial universities of Western Canada. The people of these Provinces have begun to take pride in their own institutions; and, though for some years to come parents who graduated in the East will continue to send their sons and daughters to their old university, the real needs of the West will soon be provided for at home. Already the Legislatures have made a good beginning in the financial aid that they have given to their own creations; but Canada has still a long way to go both in the East and the West before the universities are equipped as are those of the United States by reason of the liberality and foresight of its legislators.

The students of the Canadian colleges are drawn from all

circles of the people and from all sections of the provinces; but, as in Scotland, the majority come from homes of modest comfort in the towns, villages, and countryside, and require to earn sufficient to put themselves through, or to supplement their allowance, though the rapid growth of wealth in the cities has been reflected in the larger numbers of undergraduates who are supported entirely by their parents. The universities are thoroughly representative of Canadian opinion, especially that of the energetic, solid, honest old stock, but in the West also that of the best immigration which has come in recent years from Europe or from the United States. Convictions which take strong hold of the students will soon react upon the country as a potent if silent influence. It was, therefore, of the utmost importance that from the earliest moment the meaning of the war was clearly set before, and quickly grasped by, the youth of the universities. Presented with clearness and earnestness the Allies' case made its appeal to their generous natures; and through them, as they came to a decision, it confronted their parents as a vital issue; and they, in their turn, have undoubtedly been influential in creating a right sentiment throughout the country. The universities have fulfilled their function worthily in this



Top Photograph—196TH (WESTERN UNIVERSITIES) BATTALION, RECRUITED FROM THE UNIVERSITIES OF WESTERN CANADA.



Bottom Photograph—THE 5TH UNIVERSITIES COMPANY. ONE OF 6 COMPANIES SENT BY THE EASTERN UNIVERSITIES TO REINFORCE P.P.C.L.I.

period, and have justified all that was confidently claimed for them throughout the years of peace, as being creators of character and sources of ideals for service on behalf of the public by whom they are supported. Never have divergent standards of education been so thoroughly tested as in the present war, on the one side the Teutonic view as to what the State must demand from the individual, and, on the other, the Anglo-Saxon and French conception that the primary aim in education is the formation to high purpose of what is universal and truly human in each person. Our type has stood the test well. It has produced intelligent people who can grasp quickly for themselves and take action upon the essential facts in a great crisis. Instead of education producing irresolution in those who have been trained to see both sides of a question, it has purified the eyes of the heart and given sight to the will. No section of the community has contributed a larger share of their best than the universities. The initial response of the students, their behaviour in the unprecedented horrors of actual warfare, their record as officers and the distinctions that have been won on the field, are a renewed testimony to the value of higher education as serving to give intelligent direction to the common human virtues of courage and self-sacrifice. One result of our experience is that our voluntary recruiting has made a disproportionately large draft upon the young men of the universities, more of whom might to the future advantage of the country have been kept until they were twenty years of age and had completed a portion of their academic training, so that on their return they might more easily resume their studies and the sooner be prepared for their civil duties. An interruption between the school and the university tends to become permanent. A careful system of official drafting, wisely using the splendid readiness of our youth to do their duty wherever they may be asked to serve, would have provided the country with better service both in the present and in the future.

In order to form a just estimate of the work done in the war by the universities and colleges of the Dominion it must be borne in mind that the long established institutions of the East have rolls of graduates from which large numbers have enlisted; but the Western universities are of quite recent origin, except Manitoba, whose oldest graduates are now beyond the active military age. Out of the 180 graduates of Saskatchewan, for example, one of the newest universities, 76 have already enlisted. It is difficult to obtain complete information, but it may be safely affirmed that by August, 1917, 12,000 members of the universities, including graduates, members of the staffs, former students and undergraduates, had been on active service. Of these some 400 are members of the staffs and 6,000 are on the undergraduate register. There are nearly 800 names on the Rolls of the Fallen. What this means may be inferred from the estimate that of the 14,000 in attendance in all the Canadian universities before the war not more than 10,000 were men. As the war has proceeded the attendance upon the faculties has fallen so rapidly that several universities report that at the end of last session few physically fit men were left except those under age in the first year. As might be expected there is a marked difference between the faculties. Applied Science has suffered most. In one of the Eastern universities, for example, the attendance in this faculty in 1916-17 was smaller by 75 per cent. than at the opening of the war. In the same university the registration of men students

in Arts fell by 65 per cent. The faculty of Medicine maintains a higher average, because after the first winter the military authorities were unwilling to recruit as combatants students from the last two years; and, as the war has lengthened and in view of the urgent need that will arise if it is protracted, even less pressure is now being put upon the earlier years to enlist. So great has been the demand for medical officers that several universities held summer sessions in 1916 and 1917 in order that from the graduating years a supply of trained men for active service might be made available as soon as was consistent with efficiency.

One inconvenient result for the universities arising out of these activities is that they have found themselves involved in financial difficulties. In some instances the income from fees has been reduced by 50 per cent. with but a small corresponding reduction in the cost of maintenance, because the reduction in staff was relatively not great and the working expenses as made up of wages, materials for the upkeep of buildings, fuel and laboratory supplies have advanced greatly in price. Governing bodies, therefore, have realized that the very wholeheartedness of their patriotic effort has presented them with urgent and serious financial problems. Probably no other institutions in the country have paid so dearly for their patriotism.

To enlarge somewhat more fully upon these activities. At the beginning of the war the Canadian Officers' Training

Corps was organized in most of the universities under the leadership of members of the staffs who either had former military experience or who in August and September began to prepare themselves for instructing students as soon as possible after the opening of the session. Large numbers of undergraduates soon joined the corps and began to train on the university grounds without uniforms or rifles. Enlistment in the C.O.T.C. was quite voluntary, but the gravity of the situation and the extraordinary import of the



UNIVERSITY OF BISHOP'S COLLEGE, LENNOXVILLE

issue were soon grasped by the students. Allowances as to academic standing were made to those who joined and performed the duties with success, except in the professional faculties in which the standards were maintained, though the required attendance was slightly lessened in some cases. By the spring of 1915 many from the C.O.T.C. had either enlisted or were in special training corps. The military authorities showed willingness to co-operate, and soldiers of wide experience advised that, as far as possible, the universities should be made sources of supply for officers, as the intelligence of their members could as a rule be thus used to the best advantage. This policy has resulted in the transfer of many officers from the C.O.T.C. to the Canadian units and also in a steady stream of efficient men who have been sent to take commissions in the British armies.

It soon became evident that the C.O.T.C. could not meet all the military requirements. Some students either did not wish or were not qualified for commissions at once, and would do their best work first in the ranks. To provide for these men an agreeable companionship two opportunities were offered, first in the East and later in the West. A university company was established to reinforce the famous Princess Patricia Regiment, the members being drawn from many of the universities and recruited on the McGill grounds at Montreal. Six such companies in all have been formed containing besides university men others who wished to be associated with them.

The record of these companies has heightened the already fine reputation of one of the best-known Canadian regiments. Later, in the West, the 196th Western Regiment has been established to afford similar opportunities within a more uniform circle.

Infantry did not make a powerful appeal to many. Artillery became rapidly a more popular branch of the service, and batteries were formed within the universities, which were sent across as units or have served as permanent depots from which drafts are constantly made as they are ready. Other branches such as the cyclists, signallers and the flying corps have received their quota of students.

Most important services have been rendered by many members of the universities' staffs in the military schools of instruction—infantry, musketry, signalling. Accustomed to teaching, they have been able to apply to military affairs the aptitude which they have acquired by experience, and many who were unable to go on active service have fulfilled their patriotic duty in this way.

Through the faculties of Medicine the universities have played a large part, not only in training officers for units at the front, but in maintaining ambulances and hospitals manned by university teachers and graduates. Well managed though the Canadian hospitals have been on the whole during the war, the university hospitals have held a unique position,



MOTOR MECHANICS CLASS OF RETURNED SOLDIERS AT UNIVERSITY OF TORONTO

because their personnel was chosen with a special purpose, and consisting of fellow-graduates trained in the same methods of hospital practice and with the best scientific equipment, their staffs have been animated by a common loyalty to their university, and have been no less faithful to their country, for which they have made heavy personal sacrifices. Six Canadian university hospitals have been sent away. Of these three are large General Hospitals officered from the teaching staffs and graduates of McGill, Toronto and Queen's, and now stationed respectively at Boulogne, Salonica and Etaples. Stationary hospitals similarly officered have been sent by Dalhousie, Laval and the Western (London, Ont.) Universities and are stationed in France. The Medical College of Manitoba University has raised a Casualty Clearing Station and a Field Ambulance. These hospitals are maintained by the Dominion Government on the same basis as all other hospitals, but over and above this they have all been equipped and are handsomely supported by their friends and the graduates of the respective universities with extra supplies for the patients, instruments, scientific apparatus, motor-trucks and ambulances. Strong committees of ladies, working either independently or in conjunction with the Red Cross, keep the supplies up to the requirements.

On the field of this war medicine and surgery have won great victories through the many scientific investigators who are serving at the front. The laboratory has been carried to the armies. In it the war against death and disease is being waged amidst the welter of bloodshed; its victories will be

proclaimed when the din of battle has ceased and their beneficent results will gladden generations to come. At home also the laboratory has done its part, supplying sera and anti-toxins for typhoid, meningitis, tetanus, the manufacture of which has been conducted on a large scale in the Hygiene Laboratory of the University of Toronto.

Wounded or incapacitated soldiers are now returning in great numbers, and most of those who are still invalided are cared for in hospitals under the direction of the Dominion Hospitals Commission. In the case of those at Kingston, Queen's Medical Faculty has become responsible for their oversight in a building which the university has set apart for this purpose.

Experiments of a new and interesting character in the way of the re-education of returned soldiers are being conducted also under the auspices of the Dominion Hospitals Commission at the University of Toronto. Psychological and medical experts give special treatment to soldiers who have lost their powers of speech or the control over their limbs. For each case apparatus is devised where necessary, and an individual instructor is assigned. Already gratifying results have been obtained, and more may be expected when the work which has been done in England and France has been studied by our specialists. Psychology and physiology combine in this work of restoration to provide a new chance and create a new hope



UNITED STATES DELEGATES INSPECTING VOCATIONAL TRAINING METHODS AT UNIVERSITY OF TORONTO

in life for many a poor man who has thought himself nothing but a wreck cast upon the pity of a world that forgets all too soon.

The amount of work done in the other laboratories of Canada has been relatively much less than in England because so much less responsibility rests upon our Government for the conduct of the various phases of the war, and no advisory scientific committee for military or naval purposes has been created in Canada as was the case in Britain. Possibly more might have been attempted, but the research and experiment conducted in the Canadian laboratories for the Imperial authorities and for the manufacturers of munitions have been sufficient to show that in these laboratories the Dominion possesses potential resources which may be turned to great advantage in the future.

An occasional voice was raised in favour of closing the universities, but it was irresponsible and found little or no echo. University buildings, however, have been handed over to the military authorities for all sorts of purposes, for military instruction, as residences for military units, as hospitals; in fact, the universities have held themselves in readiness to inconvenience themselves and reduce their wants to the lowest possible requirements in order to put their space at the disposal of the military authorities. But the structure of laboratories and classrooms is such that the uses to which they can be put are few. Of the housings within the universities not the least interesting is that of the Royal Flying Corps. Large numbers

of young Canadians have taken commissions in the Royal Naval Air Service and the Royal Flying Corps, in which they have done excellent work. This country offers an excellent



RECEIVING MESSAGES BY PANNEAN SIGNAL METHOD

field for this kind of recruiting, and in the winter of 1916-17 a cadet school of instruction, with further training facilities and mechanical equipment, was opened in Toronto by the Home authorities, and it bids fair to supply many officers for a branch for which the Canadian seems to have peculiar aptitude.

An unexpected but most welcome opportunity for the university man who has returned wounded and is unable to resume active service at the fighting line or is on long leave has been presented by reason of the entrance of the United States into the war. Repeating the experience of Canada and endeavouring to profit by what we have learned, their universities are coming to us for officers who may give their students practical training made effective by what they have gone through in real warfare. They hope to get from our officers not only instruction adapted to the new conditions brought about in this war, but also an enthusiasm which will be created in the mind of the undergraduate, naturally a hero-worshipper, by his intercourse with a college man who has won the right to honour. The widespread and urgent needs of the army of the United States leave few officers for purposes of instruction in the universities, which, therefore, have turned to Canada for help. Our military authorities have co-operated most heartily with the universities in releasing for this duty such returned officers as the universities may recommend as being suitable for this work. Already Yale, Columbia, and other American institutions have been supplied; but not nearly all the requests can be met, as the number of returned officers who after a short leave are unable to resume their duties at the front and are well enough to have the necessary qualifications is smaller than might be expected. Those, however, who have gone are rendering most valuable service in strengthening between the two countries bonds of friendship which we hope will become indissoluble through our united sacrifices for the preservation of similar ideals of civilization.

In another respect the United States has made wise use of its universities. Two Boards have been appointed by Congress to disseminate right views of the war among the people and to educate them as to the progress of events. One is entitled the Committee on Public Information and the other the National Board for Historical Service. These committees are composed for the most part of members of the universities, who in this way are enabled to use their special gifts for the direct service of their country. In Canada no such effort has been organized by the Government, but patriotic leagues have been formed to provide speakers for recruiting purposes, who by explaining the meaning of the war to as wide circles as possible have stimulated enlistment and created interest in patriotic funds. This work has been very

successful. In it members of the universities have taken a large part, and, in addition, the universities themselves have arranged courses of lectures on the historical, political, military, and economic aspects of the war which have been heard by large audiences in many centres.

The present war has given science a new prestige in the eyes of the man in the street. He sees that the instruments and explosives of modern artillery are the products of science, that the aeroplane and submarine are the creations of scientific genius. The terrible effectiveness of modern warfare as measured by its wreckage of human life and of the fruits of civilization is to be laid to the account of science, though not the spirit which called these instruments into exercise. But by an almost insane paradox science has also snatched the wounded from the jaws of death with unprecedented skill and has warded off the disease which aforesaid was as deadly as the bullet. Science itself puts its triumphs at the disposal equally of the man of war or of peace, of him who will use them for the destruction or for the restoration of mankind. It may be expected, therefore, that the military man, even in those countries which will never be "militaristic", will henceforth be a defender of the scientific institutions of his nation, and will advocate the laboratory as a defence against aggression.

Already the world is looking to the days of peace. After the war the devastated world will appeal both to the pity and to the energy of the survivors. If science has revolutionised war it will also revolutionise the arts of peace, and recover wealth for the impoverished. The economic waste must be repaired by a more rigid application of science to industry. This conviction has laid hold upon the leaders of the peoples who are now at war. Britain has called her scientists and her most capable and far-seeing men of business to serve upon committees and in bureaus for giving a lead to the industrial and commercial life of the new era, and fruitful results may be anticipated from the precision, thoroughness, imagination, and powers of organization of these men. This movement has reached Canada, and the Dominion has its Advisory Council on Scientific and Industrial Research, which owes its existence in large measure to the fact that Sir George Foster took counsel with some of the scientific men in the universities, and, acting on their knowledge and associating with them more experienced industrial leaders, has provided for Canada an organization similar to what exists in Britain. Co-operation with the universities will be essential for its success, and that co-operation has already begun. Recognizing that the first step in progress is to secure well-trained investigators, the Council has established a series of research fellowships which are to be held at the universities under the direction of the heads of laboratories. Definite problems will be undertaken not only in the bureaus that may be established, but we may suppose also in the existing university laboratories. The Council may thus become a means of co-ordinating and economizing the existing scientific opportunities of the country.



R.A.F. CADET OPERATING PANNEAN SIGNAL

In view of this demonstration of the utility of Applied Science it will doubtless be less difficult to persuade the people that universities, which are directly and indirectly of such enormous potential value to the industrial and economic development of the country, should receive more generous

application of science to industry should come to pass. There will be insistent demands for the enlargement of the departments for the purpose of research. Appeals will be made for the establishment of new departments as the industries come to see that the laboratories can be made to serve them, and



R.A.F. CADETS BEING TRAINED IN USE OF COMPASS

financial support. And, of course, the rapid increase in the expenditure of a modern university is due to the equipment and maintenance of laboratories, especially those of Applied Science. Physical, electrical, and mechanical apparatus is very expensive. In the path of progress lie strewn costly instruments which are soon out of date. New plant involves large outlay; renewals cost heavily; even the supplying of the library with the current scientific periodicals of the world is no small item of expense. In science up-to-dateness is essential for development. This fact must be grasped by the intelligent people, for the future will face them with more insistent demands than ever from the universities. But the years of war have crippled the resources of the universities. Rigid economy has been enforced; expenses have been reduced to a minimum; stocks have run very low. It has been a sufficiently serious task to keep the universities going; impossible to provide equipment which would be adequate apart from war conditions. The scrupulous economy of these war years may leave the universities with a new problem. If these minimum war requirements are taken by the public as a possible standard of efficiency, the latter state of the universities will be much worse than the former. They will need the support of their friends to justify them, when, as is inevitable, the expenditures will rise rapidly after the war if even the former standards are to be recovered. But those standards must be surpassed if what has been said above about the



A TRAINING AEROPLANE AT TORONTO UNIVERSITY

electrical and chemical developments will grow apace. National self-sufficiency likewise will react upon education, and we shall be expected not to remain in dependence upon the intellectual hospitality of other countries for the training of our experts in the sciences and the arts.

An inevitable result of the war will be that we shall have in the next generation an insufficient supply of our own men to do the work of science for the country. The universities have given so prodigally of their best that we shall suffer a lack of highly equipped men. This loss is irreparable. But will not this loss be compensated for by the enduring possession that will be ours in the rebirth of idealism through the sacrifice of so much of the best? It is as creators of intellectual and moral idealism that universities fulfil their supreme purpose. The universities perform their noblest function and are of most enduring value to the community as the inspirers of idealism in youth, and in becoming homes for those who will keep brightly burning in the nation the zeal for knowledge and for the pursuit of truth, and who are on the alert to discover in their students those to whom they may in confidence commit the sacred torch. Idealism gives new life to universities; by its revival they have been rejuvenated through the centuries. This war, again, has called forth heroic idealism in the youth who saw the truth in the conflict and have been obedient to it even unto death; and in this magnificent inspiration the universities of Canada will renew their strength.



WAR TIME STUDENTS INVADING VARSITY.



R.A.F. CADETS "TAKING POSSESSION" ON CAMPUS.



CONNAUGHT LABORATORIES, UNIVERSITY FARM

The War Work of the Connaught and Antitoxin Laboratories, University of Toronto

By ROBT. D. DEFRIES, M.D., D.P.H., ASSOCIATE DIRECTOR

As the war has progressed the demand of the army for biological products, which have been prepared in these Laboratories, has steadily become greater. The production of diphtheria antitoxin which had barely been well established before the war broke out, was soon followed by the production of large quantities of Tetanus Antitoxin (lock-jaw serum). One by one other necessary products were produced, including anti-meningitis serum, smallpox vaccine, anti-pneumococcus serum and a serum for the prevention of gas-gangrene infection of wounds. From a small beginning of inoculation of four horses, the work has grown till at the present time over fifty horses are being used in the production of these serums. It has grown from occupying a small stable in the city, to a most modern antitoxin stable and laboratories, situated on an ideal farm north on Dufferin Street. This has been possible through the foresight and enthusiasm of the founder and director of the laboratories, Major J. G. Fitzgerald, who in March last, was granted a short leave of absence for service Overseas, and Colonel Albert Gooderham, who as chairman of the Antitoxin Committee has given most generously of his time, and made possible the enlargement and permanence of the work by his splendid gift to the University of the present farm with its model laboratory buildings, costing more than seventy-five thousand dollars.

Probably the greatest problem which the war has presented to Military surgeons is the treatment of wounds which have been infected with

certain deadly germs from the soil. The majority of these germs have their normal abode in the intestinal tract of animals, and instead of dying when thrown on the soil, lie dormant, existing in this way for years. Two at least of the most dreaded diseases at the front occur from wound infection, namely, tetanus or lock-jaw

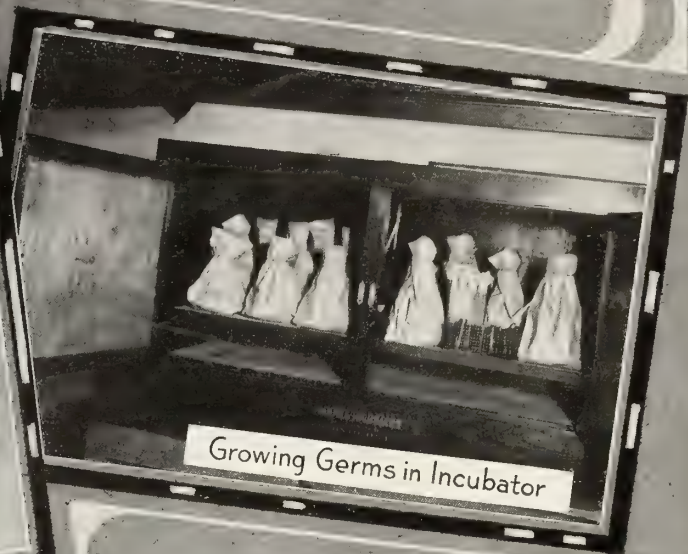
and gaseous gangrene—a rapidly spreading and fatal gangrene. The prevention of the former depends entirely on the early injection of Tetanus Antitoxin. In the early days of the war when this serum was not available many cases of lockjaw developed, but to-day lockjaw is of rare occurrence. Every wounded man now receives a little injection of the powerful antitoxin and is protected for a certain period against lockjaw. The Laboratories have produced over two hundred and fifty thousand packages of this serum, and more than two hundred thousand packages have been sent Overseas. This serum has been supplied at a price much lower than that at which this serum was offered to the army by commercial manufacturers. The production of this quantity of serum has entailed the injection of sixty horses. In preparing this serum, healthy horses are selected and injected with increasing doses of the lockjaw poison. To obtain this poison, which is one of the most powerful known, the germs are grown in a special broth for two weeks. The germs are removed by carefully filtering, and the clear broth contains the poison. The poison is so powerful, that less than one thousandth of a drop will kill a small guinea-pig. The horse, as the



CONNAUGHT LABORATORIES, MEDICAL BUILDING, UNIVERSITY OF TORONTO



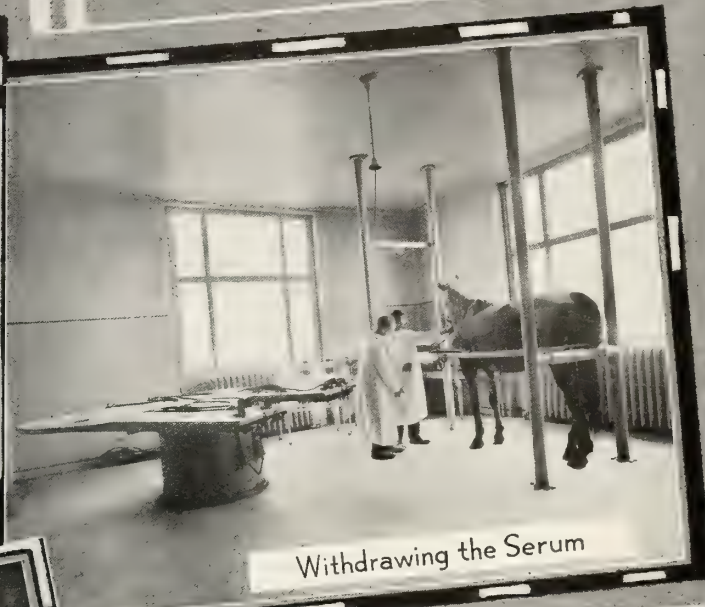
Tetanus Poison Laboratory



Growing Germs in Incubator



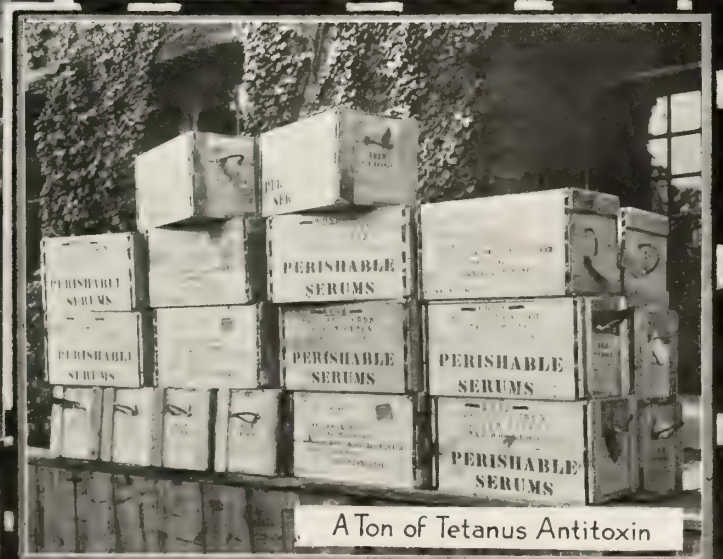
Horses during Treatment



Withdrawing the Serum



Concentrating the Serum



A Ton of Tetanus Antitoxin



PRODUCTION OF SMALLPOX VACCINE

1. Bathing the calf before vaccination.

2. Vaccine Unit, showing preparation rooms adjoining operating and calf rooms.

3. Feeding the calf after vaccination.

treatment is continued, produces an antitoxin to neutralize the poison, and finally after six or eight months, is not in the least affected by very large amounts of the poison. The serum is then obtained from the blood of these horses at regular intervals, and during the whole treatment the horses maintain good health. In order that the quantity of serum which must be injected into the wounded man, to protect him, may be as small as possible, the serum is subjected to a lengthy chemical treatment, and in this way the serum is concentrated and the volume reduced proportionately.

The splendid endowment for research work in these laboratories, which was announced by the Provincial Government of Ontario last October, immediately made possible an investigation of the problem of gas-gangrene infection of wounds. At the request of the University, the Department of Militia and Defence recalled Captain A. H. Caulfeild from France to undertake the work of producing a serum which would possibly prevent the development of this disease. Investigations in this subject have shown that there are a number of bacteria associated with the production of this condition. The problem of producing a preventive serum is therefore a most difficult one. The protective value of such a serum has already been demonstrated in laboratory experiments in which pigeons have been protected against large doses of the poisons of certain of these germs. The field of research in this problem is very arge, but the possibility of producing a serum which would be of such great value at this time is sufficient reason for the most energetic prosecution of this work. Six horses are being treated and the preliminary tests have shown most encouraging results.

One of the most essential products which the University has had the opportunity of producing is smallpox vaccine. This product necessitates exacting care in the development of the

vaccine from healthy calves and requires most modern equipment. Over six hundred thousand capillary tubes of vaccine have so far been supplied to the C.E.F. and in addition a large quantity has been furnished to the various Provincial Boards of Health in Canada.

During the past year the production of anti-meningitis serum for the treatment of epidemic meningitis has been greatly increased. It is gratifying to know that this serum, a large quantity of which was sent Overseas, has given most satisfactory results. The Laboratories have recently supplied for the Siberian Expedition anti-dysentery serum. This serum has proved to be of great value in treatment of certain cases of dysentery, and was used with success at Salonika in our own University Hospital.

One of the greatest aims of the Laboratory has been to produce the very finest biological products at prices much lower than those charged by commercial laboratories. The steadily increasing public demand has made it possible to continue to decrease prices even during war time. Over and above this more obvious aim, of making life-saving products available to all, there remains another—that of proceeding with further investigations in order that the present products may be improved and new and more valuable means for combating disease discovered. Obvious directions in which these investigations should tend may be indicated by the lack of curative methods in tuberculosis, influenza and pneumonia. In researches comparable to those undertaken by the Lister Institute, England, the Pasteur Institute, France, and the Rockefeller Institute, New York, there lies the possibility of very valuable work for the Connaught Laboratories, and the period after the war will see an immediate enlargement of the scope of such studies.

The Antitoxin Laboratory was first opened on May 1, 1914 in connection with the Department of Hygiene, with the idea of preparing and distributing public health biological products for the use of provincial and municipal health authorities. The Provincial Board of Health supplies these products free of charge in Ontario.

Now the war is over wounded men requiring any of these products will thus be supplied free of charge instead of having to pay the almost prohibitive prices charged before the war.



Research Laboratory for investigation of Gas Gangrene Infection.



"BRICK TOP." A REAL WAR HORSE. Has supplied sufficient serum for 15,000 soldiers in his four years of service.

ON ACTIVE SERVICE

"But it isn't playing the game," he said,
 And he slammed his books away :
 "The Latin and Greek I've got in my head
 Will do for a duller day."
 "Rubbish!" I cried, "the bugle's call
 Isn't for lads from school."
 D'ye think he'd listen? Oh, not at all :
 So I called him a fool, a fool.

I called him a fool---oh, blind was I!
 And the cup of my grief's a-brim ;
 Will glory o' England ever die
 So long as we've lads like him ?---
 So long as we've fond and fearless fools,
 Who, spurning fortune and fame,
 Turn out with the rallying cry of their schools,
 Just bent on playing the game.

—ROBERT SERVICE.

INDEX TO ACTIVE SERVICE PHOTOGRAPHIC ROLL VARSITY MAGAZINE SUPPLEMENTS—1916, 1917, 1918

LIST A.

Lt. E. M. Abendana—Pte. F. Zwick page 46-84, 1916 Edition

LIST B.

Pte. H. F. Abernethy—2nd Lt. T. J. Young page 80-100, 1917 Edition

LIST C.

Lt. C. S. C. Acheson—Lt. G. F. Zimmerman page 101-103, 1917 Edition

LIST D.

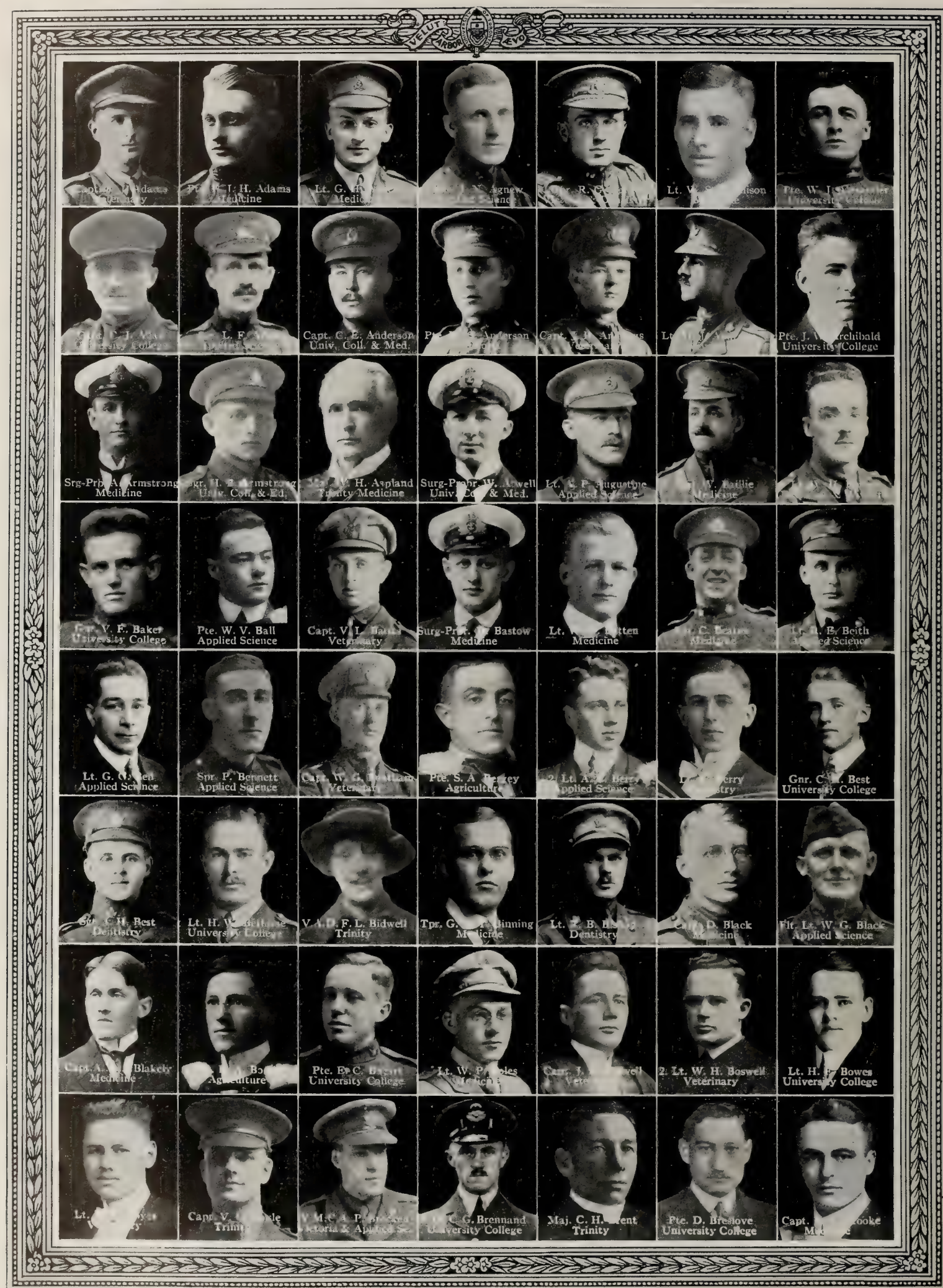
Capt. F. J. Adams—Sgt. J. C. Wilson page 98-100, 1918 Edition

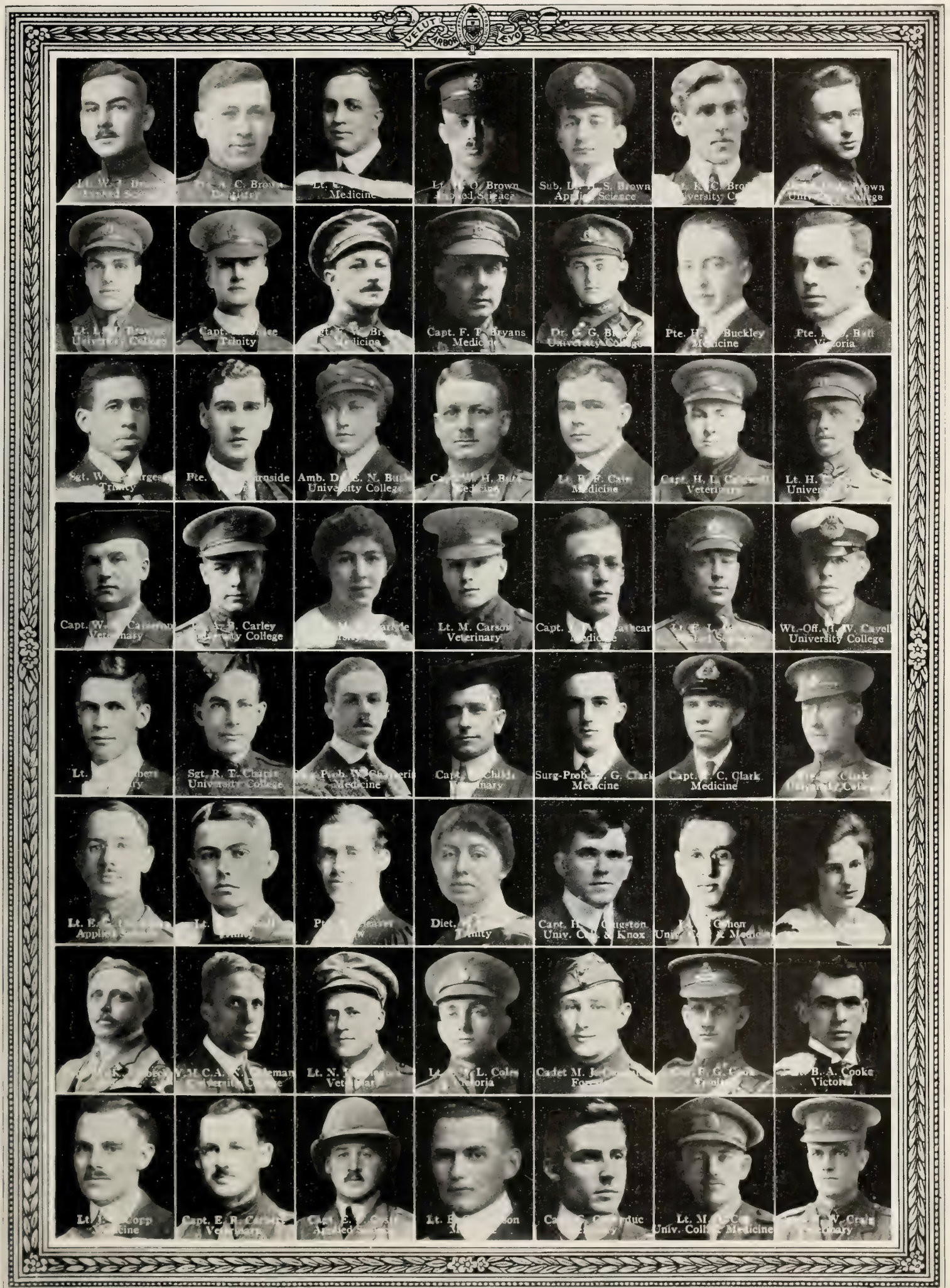
LIST E.

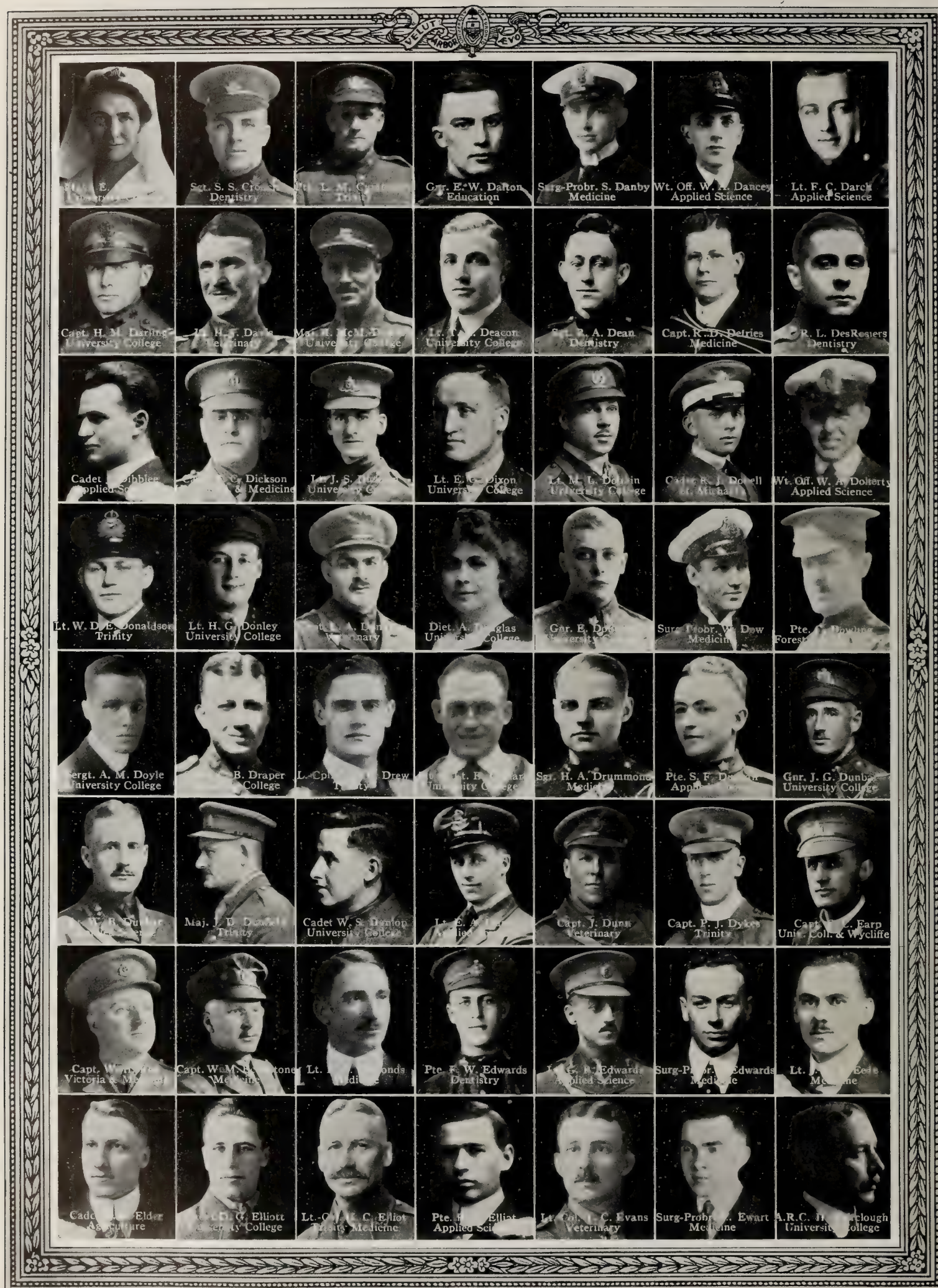
A/M. E. C. Armstrong—Flt.-Lt. G. L. Winterbottom page 110-112, 1918 Edition

LIST F.

Capt. H. H. Bishop—Surg.-Probr. G. T. Zumstein page 113, 1918 Edition





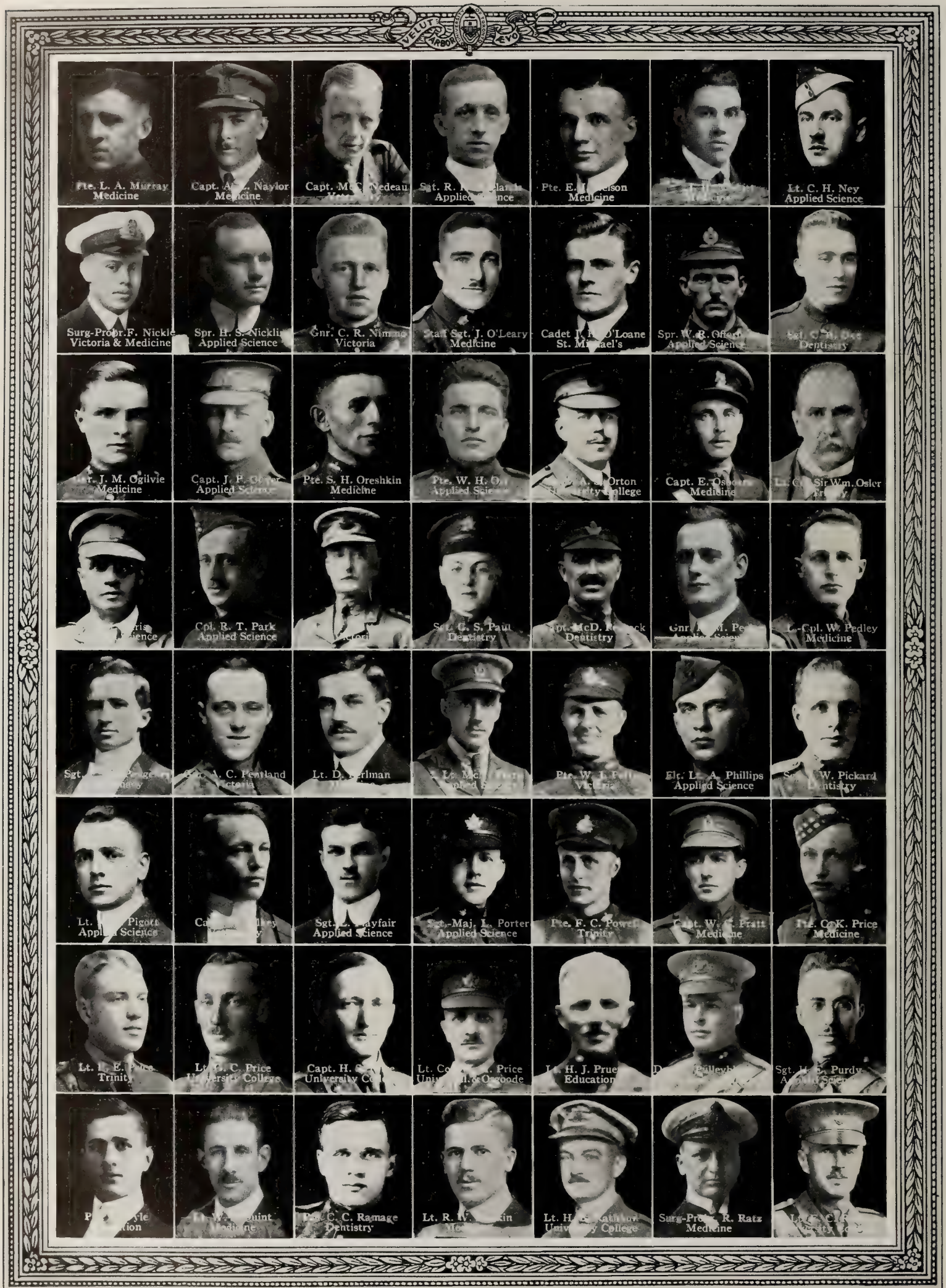




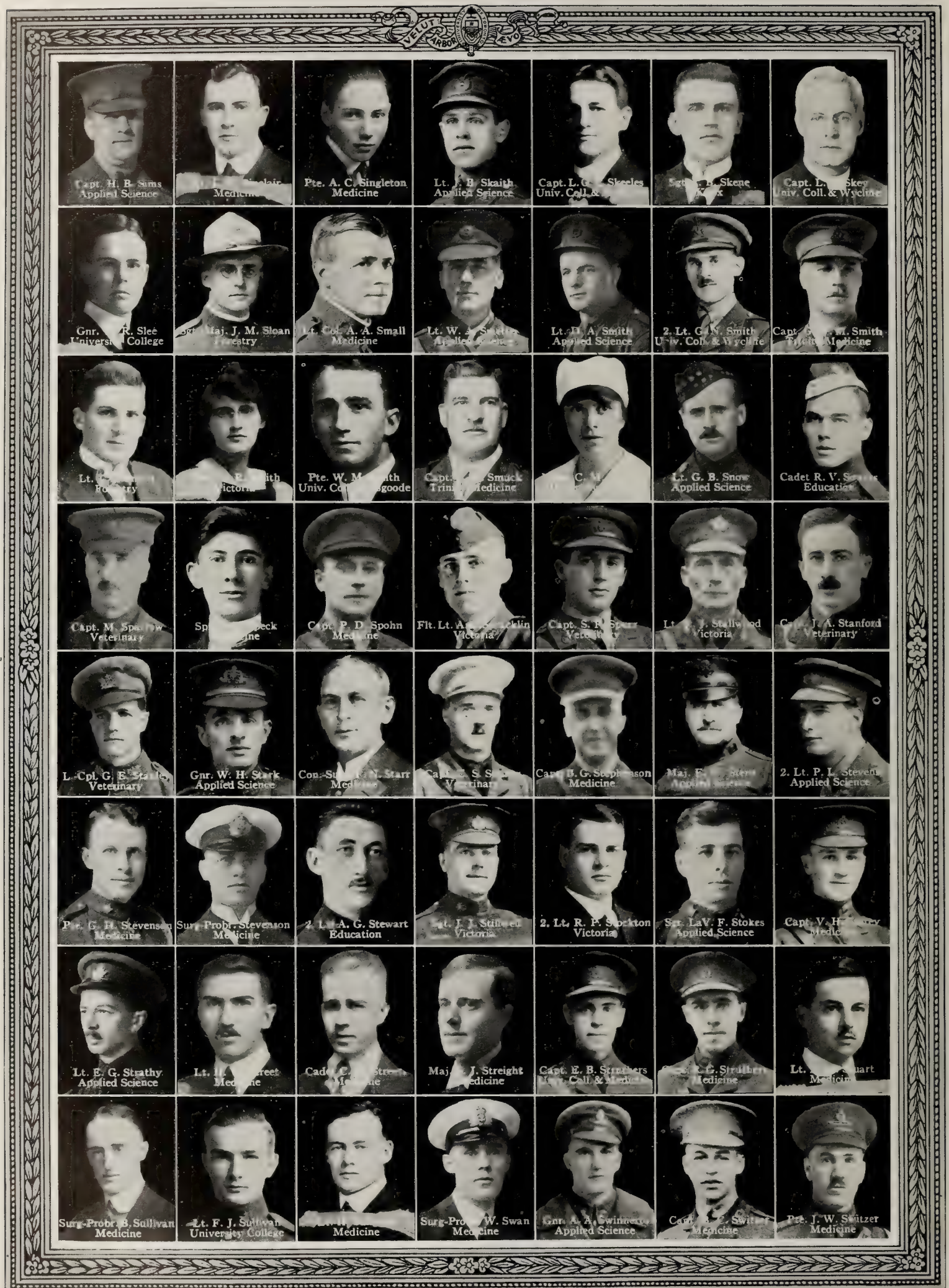








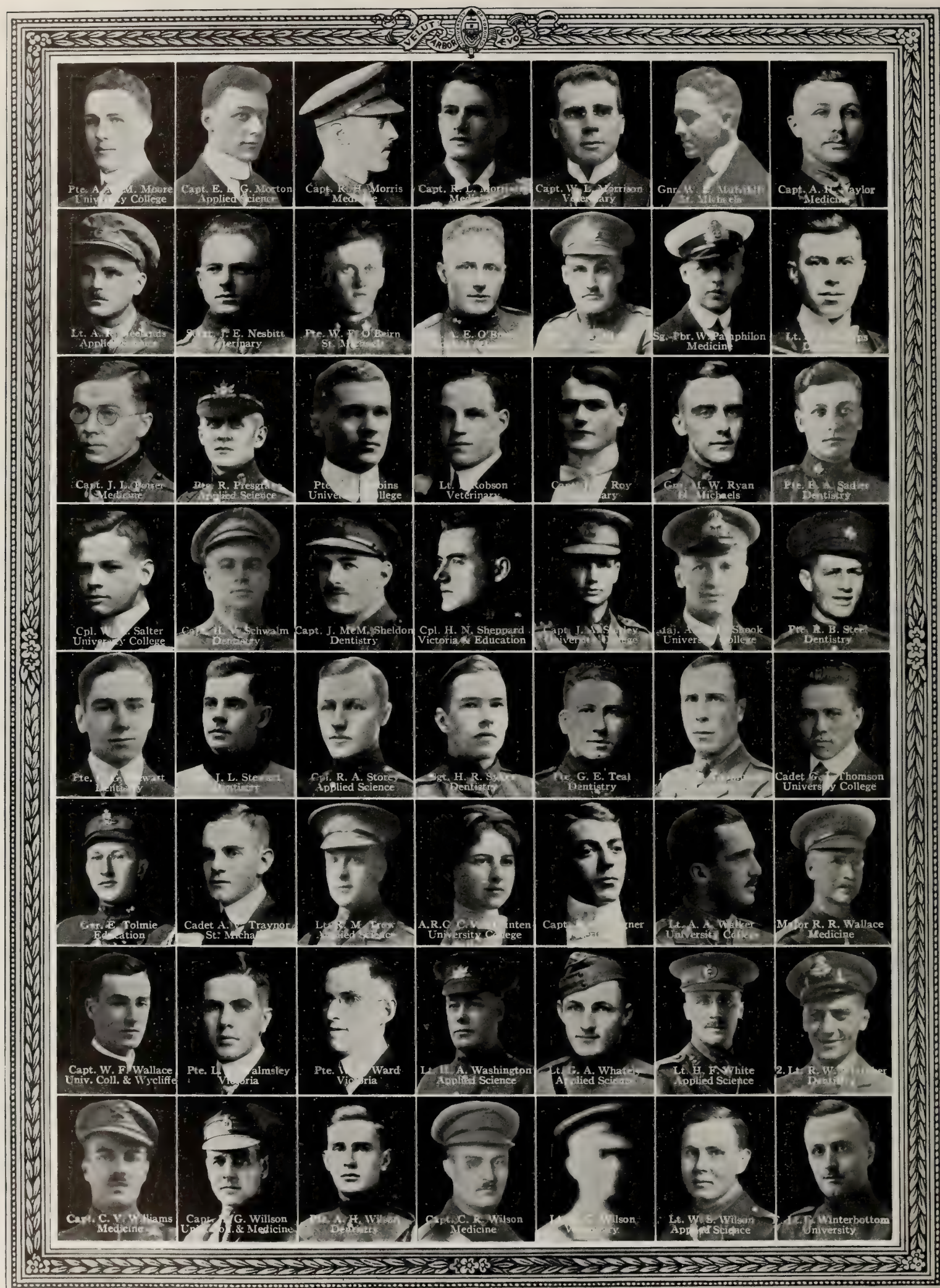














On Active Service

(Supplementary to Photographic Lists)

[The preceding photographic record (pp. 97-112) of members of the University of Toronto on Active Service is supplementary to the photographic records published in the 1916 and 1917 Editions of THE VARSITY MAGAZINE SUPPLEMENT. These three records of 1916, 1917 and 1918 together make a complete *photographic* record of those whose portraits were obtainable. The following printed list records the names of those whose photographs were *not* obtainable and is therefore supplementary to the photographic records. The three photographic sections of the Active Service Roll, together with the Honour Roll of those who have been killed or died on service and the supplementary printed roll following, make a complete record of members of the University of Toronto known to have been on Active Service.—EDITOR.]

PTE. HARRY SMITH ABAR,	Dentistry.	— R. G. BEATTY,	Agriculture.	PTE. ARTHUR BRADSTOCK,	Trinity.
PTE. HAROLD ADAMS,	Dentistry.	PTE. H. J. BECK,	St. Michael's Coll.	— J. M. BRAND,	Veterinary.
CAPT. H. MACKEY ADAMS,	Medicine.	— R. BECKETT,	Agriculture.	— J. J. BRICKLEY,	Agriculture.
V.A.D. KATHLEEN ADCOCK,	Adm. Staff.	LT.-COL. T. C. D. BEDELL,	Medicine.	LT. SAMUEL G. BRIGHT,	Veterinary.
— J. C. AGAR,	Agriculture.	CAPT. E. C. BEER,	Trinity Medicine.	SUB. FLT. LT. C. G. BROCK,	University College.
LT. J. P. AITKIN,	Agriculture.	PTE. J. E. BELFRY,	Victoria.	— E. R. BROCK,	University College.
— R. M. AITON,	Agriculture.	MAJ. CHARLES C. BELL,	Medicine.	— M. C. BROKENSHIRE,	Education.
— R. D. ALLAN,	Agriculture.	1ST LT. H. C. BELL,	University College.	LT. G. F. BROOKS,	Agriculture.
MAJ. C. W. ALLEN,	Applied Science.	CAPT. J. J. BELL,	University College.	LT.-COL. C. BROWN,	Dentistry.
L.-CPL. F. ALLEN,	Applied Science.	CAPT. J. W. BELL,	Dentistry.	LT. D. L. BROWN,	Dentistry.
LT. FREDERICK G. ALLEN,	Applied Science.	SERG. J. W. BELL,	Dentistry.	PTE. E. W. BROWN,	Medicine.
PTE. L. A. ALLEN,	Trinity.	PETTY OFFR. K. C. BELL,	University College.	CAPT. H. G. BROWN,	Victoria.
CAPT. D. ALLISON,	Medicine.	CAPT. THOMAS H. BELL,	Trinity Medicine.	SUB. LT. H. R. BROWN,	Applied Science.
CAPT. W. C. ALLISON,	Medicine.	CAPT. F. M. BELLSMITH,	Victoria.	SGT. MAJ. J. M. BROWN,	Agriculture.
— J. R. ALMEY,	Agriculture.	— J. E. BENNETT,	Veterinary.	SERG. JOHN TRACY BROWN,	Dentistry.
LT. WALTER W. C. ALNACK,	Victoria.	GNR. OSCAR W. BENNETT,	Agriculture.	CPL. RALPH BROWN,	Agriculture.
LT. G. A. AMES,	Agriculture.	LT. GEORGE A. BENTLEY,	Medicine.	LT. RICHARD BROWN,	Agriculture.
MTR. DR. P. A. ANDERSON,	University College.	LT. L. BERTRAM,	Agriculture.	LT.-COL. W. J. BROWN,	Agriculture.
MAJ. W. H. K. ANDERSON,	Univ. Coll. & Med.	SGT. MAJ. R. C. BESWICK,	Applied Science.	— W. R. BROWN,	Agriculture.
— W. M. ANDERSON,	Agriculture.	LT. J. A. BETHUNE,	Agriculture.	1. LT. H. J. BROWNLEE,	Staff.
PTE. O. F. ANDREW,	Medicine.	2. LT. L. D. BICKFORD,	University College.	LT. J. L. BRYANT,	University College.
CAPT. T. D. ARCHIBALD,	Medicine.	MAJ. S. P. BIGGS,	University College.	CAPT. P. H. BUCHAN,	Applied Science.
COL. DONALD J. ARMOUR,	Univ. Coll. & Med.	SGT. W. J. BIRD,	Agriculture.	CAPT. R. H. H. BULTEEL,	Trinity.
— HARRY E. ARMSTRONG,	Education.	— W. BISSETT,	Agriculture.	SPR. J. R. BURGESS,	Applied Science.
LT. ROBT. K. ARMSTRONG,	Applied Science.	— W. J. BLACK,	Agriculture.	CAPT. JOHN M. BURNETT,	Medicine.
LT. C. L. ARNOLD,	Agriculture.	CAPT. G. G. BLACKSTOCK,	Applied Science.	— R. T. BURNETT,	Agriculture.
— G. I. ARNOLD,	Agriculture.	LT. W. G. BLACKSTOCK,	University College.	LT. HAROLD S. BURNS,	Medicine.
— G. J. ARNOLD,	Agriculture.	MAJ. S. T. BLACKWOOD,	University College.	CAPT. W. A. BURNS,	Dentistry.
LT. HUBERT G. ARNOLD,	Education.	LT. F. JAMES BLAIR,	Applied Science.	LT. A. LEROY BURT,	Victoria.
CAPT. C. F. ATKINSON,	Medicine.	MAJ. E. W. H. BLAKE,	University College.	CAPT. F. BUSHFIELD,	Victoria.
CADET G. C. ATKINSON,	Agriculture.	CADET H. M. BLAKE,	University College.	— H. BUTTERS,	Agriculture.
CADET G. G. AUSTIN,	Education.	PTE. W. M. BLAKELEY,	Dentistry.	— JOHN WM. BUTTON,	Victoria.
SERG. C. H. AVERY,	Dentistry.	PTE. M. H. BLANDIN,	Dentistry.	LT. L. V. CALDWELL,	Agriculture.
CAPT. A. C. AYLESWORTH,	Victoria.	CAPT. D. H. BODDINGTON,	Medicine.	— E. W. CALVERT,	Agriculture.
LT. F. H. R. BAKER,	Agriculture.	LT. C. E. BOND,	Medicine.	— THOMAS C. CAMERON,	—
PTE. H. E. BAKER,	Medicine.	PTE. J. H. M. BOND,	Trinity.	CAPT. C. A. CAMPBELL,	Trinity Medicine.
LT. F. W. BALL,	Veterinary.	CAPT. G. C. BONNYCASTLE,	Dentistry.	CAPT. D. A. CAMPBELL,	Medicine.
CAPT. G. H. BALLS,	University College.	CAPT. VERY REV. L. BOOTH,	Trinity Medicine.	PTE. E. T. CAMPBELL,	Dentistry.
LT. OSWALD F. BANTING,	University College.	CAPT. E. A. BOTT,	University College.	— F. T. CAMPBELL,	Trinity Medicine.
DIET. J. BARBER,	University College.	— E. G. BOUIS,	Agriculture.	CAPT. G. C. CAMPBELL,	Applied Science.
LT. T. BARBER,	University College.	LT. O. BOULTON,	Agriculture.	— H. M. CAMPBELL,	Agriculture.
— T. I. BARNBY,	Education.	LT. O. B. BOURNE,	Applied Science.	CAPT. J. A. CAMPBELL,	Medicine.
— D. P. BARR,	Applied Science.	LT. INNES BOWIE,	Trinity Medicine.	CAPT. J. A. M. CAMPBELL,	Medicine.
GNR. A. E. BARRITT,	University College.	SERG. W. MCC. BOX,	Dentistry.	CAPT. T. C. CAMPBELL,	Trinity Medicine.
CAPT. W. G. BARTLET,	University College.	CAPT. H. A. BOYD,	University College.	— A. H. CARMICHAEL,	Applied Science.
SERG. H. R. BATEMAN,	Dentistry.	PTE. W. E. BOYD,	Dentistry.	PTE. T. S. CARPENTER,	Dentistry.
CAPT. GORDON A. BATES,	Medicine.	PTE. G. A. BRACE,	Applied Science.	MAJ. W. M. CARLOCK,	Medicine.
— E. J. BAUMAN,	Staff.	CAPT. W. D. BRACE,	Medicine.	LT. A. M. CARRGL',	Dip. Sc.
PTE. F. W. BEACH,	Dentistry.	PTE. R. W. BRADLEY,	Dentistry.	SERG. E. T. CARROthers,	Dentistry.

THE VARSITY MAGAZINE SUPPLEMENT

CAPT. G. M. CARSON,	Medicine.
— H. A. CARSON,	Agriculture.
CAPT. T. A. CARSON,	Medicine.
CADET J. J. CARTER,	Medicine.
— H. CASSELLS,	Agriculture.
CAPT. W. H. CASSOP,	Trinity.
PTE. H. J. CAULFIELD,	Dentistry.
— C. CHAMBERLAIN,	Agriculture.
LT. E. T. CHESLEY,	Agriculture.
LT. W. M. CHESTER,	Agriculture.
PTE. H. L. CHILVER,	Applied Science.
LT. JOHN S. CHISHOLM,	Trinity Medicine.
— F. CLARE,	Agriculture.
PTE. P. T. CLARK,	University College.
BDR. R. S. CLARK,	University College.
PTE. A. M. CLARKE,	University College.
PTE. F. W. CLARKE,	Dentistry.
— H. W. CLARKE,	Applied Science.
— J. B. M. CLARKE,	Agriculture.
— W. CLARKSON,	Veterinary.
— A. G. CLARRY,	Agriculture.
— P. CLEAVE,	Dentistry.
— C. A. CLINE,	Agriculture.
CADET E. S. CLYSDALE,	Medicine.
CAPT. JOHN COBOURN,	Victoria.
SERGEANT E. W. COCKERLINE,	Applied Science.
LT. G. C. COCKERTON,	Veterinary.
— B. CODY,	Agriculture.
LT. H. COLEBOURN,	Veterinary.
CAPT. THEOBOLD COLEMAN,	Medicine.
LT. HOWARD B. COLLET,	Veterinary.
CAPT. H. L. COLLINS,	Medicine.
LT. A. B. COLVILL,	Trinity.
GNR. E. R. COLWILL,	Victoria.
— P. C. CONNOR,	Agriculture.
GNR. CLARENCE C. COOK,	University College.
— W. O. COOK,	Agriculture.
CAPT. F. H. COONE,	Medicine.
— R. C. COPELAND,	Agriculture.
— R. R. CORBETT,	Agriculture.
PTE. L. COUGHLIN,	Dentistry.
CADET H. S. COULTER,	Trinity.
SERGEANT C. A. COURVILLE,	Dentistry.
CAPT. ELDON D. COUTTS,	Medicine.
— A. H. COWAN,	Agriculture.
— C. COX,	Agriculture.
PTE. EDWARD CRAIG,	Trinity.
PTE. C. S. CRAWFORD,	University College.
— R. S. CRAWFORD,	Agriculture.
LT. C. D. CREIGHTON,	University College.
— H. J. CUDMORE,	Agriculture.
SERGEANT ROBT. B. CUMMING,	University College.
— C. CUNNINGHAM,	Agriculture.
— C. G. CUNNINGHAM,	Veterinary.
— H. CURRAN,	Agriculture.
— D. CURRIE,	Agriculture.
LT. N. CURTIS,	Agriculture.
— J. A. CUTHBERTSON,	Agriculture.
— A. B. CUTTING,	Agriculture.
CAPT. F. A. DALLYN,	Applied Science.
GNR. T. A. DANIELS,	Applied Science.
PTE. J. T. DANIS,	Medicine.
SERGEANT C. DARYAW,	Dentistry.
LT. G. R. DASHWOOD,	Applied Science.
— H. R. DAVIS,	Agriculture.
PTE. L. E. DAWSON,	Medicine.
LT. A. J. DELOTBINIERE,	Forestry.
— C. DELWORTH,	Agriculture.
— N. A. DICKSON,	Agriculture.
LT. W. L. DILL,	Veterinary.
PTE. F. DINGLE,	Dentistry.
CAPT. O. T. DINNICK,	Medicine.
LT. EDGAR C. DIXON,	Trinity Medicine.
— D. DODDING,	Agriculture.
SERGEANT G. DODGE,	Dentistry.
— W. J. DOHERTY,	Education.
SERGEANT E. R. DONALDSON,	Agriculture.
— J. R. DONALDSON,	Agriculture.
PTE. HARRY L. DOUGAN,	Victoria.
LT. K. L. DOUGLAS,	Veterinary.
— N. D. DOW,	Agriculture.
— F. H. DOWNING,	Applied Science.
CAPT. W. S. DREWRY,	University College.
CAPT. A. A. DRINAN,	Trinity Medicine.
— EUSTACE DUDLEY,	Education.
LT. R. L. DUDLEY,	Dentistry.
— C. H. DUFF,	University College.
— C. W. DUFF,	Agriculture.
CAPT. A. E. DUNCANSON,	Applied Science.
PTE. A. S. DUNN,	Medicine.
— C. I. DUNN,	Agriculture.
LT. JOHN NELSON DUNNING,	Dentistry.
— A. M. C. DUSSEAU,	Medicine.
LT. A. G. S. DU TOIT,	Agriculture.
— A. M. DU TOIT,	Agriculture.
— C. E. DWYER,	St. Michael's.

CAPT. G. EADIE,	University College.
— F. D. EARLY,	Veterinary.
— J. A. EDMUNDS,	Veterinary.
2. LT. E. EDWARDS,	Staff.
LT. EDWIN W. EDWARDS,	Victoria.
— G. H. EDWARDS,	Agriculture.
— H. S. EDWARDS,	Agriculture.
— R. H. ELGIEM,	Agriculture.
CAPT. J. N. ELLAH,	Veterinary.
— ALBERT E. ELLIOTT,	Victoria.
— ARTHUR H. ELLIOTT,	Education.
CAPT. C. R. ELLIOTT,	Trinity Medicine.
SERGE. E. V. ELLIOTT,	Dentistry.
— FRED WM. ELLIOTT,	Education.
LT. MALCOLM S. ELLIOTT,	Univ. Coll. & Vic.
— E. G. ELLIS,	Medicine.
— L. H. ELLSWORTH,	Veterinary.
BRIG. GEN. J. F. EMBURY,	University College.
CPL. J. H. ERB,	Agriculture.
— W. H. ESTABROOKS,	Agriculture.
— CHAS. M. EWING,	Education.
PTE. E. O. EWING,	Applied Science.
CAPT. P. E. FAED,	Medicine.
SERGE. W. H. FAIR,	Victoria.
— W. FAIRLES,	Agriculture.
CADET T. A. FARGEY,	Applied Science.
GNR. R. F. FARQUHARSON,	Medicine.
PTE. V. R. FARRELL,	Dentistry.
PTE. E. G. FASSEL,	University College.
PTE. LIONEL C. FAUVEL,	Univ. Coll. & Wycl.
LT. KEITH G. FEELING,	Staff.
CAPT. FRED WARD FELL,	Dentistry.
LT. K. C. FELLOWES,	Applied Science.
CADET HAROLD B. FENECH,	University College.
— F. FENWICK,	Agriculture.
CADET JOHN FERGUSON,	University College.
— P. H. FERGUSON,	Agriculture.
CAPT. T. W. FERGUSON,	Trinity Medicine.
— D. G. FIDLAR,	Trinity Medicine.
— C. W. FINNEMORE,	Agriculture.
— J. FISHER,	Veterinary.
— M. H. FISHER,	Agriculture.
— C. M. FLATT,	Agriculture.
CAPT. J. E. FLAVELLE,	Agriculture.
— C. FLEMING,	University College.
CAPT. A. G. A. FLETCHER,	Trinity Medicine.
PTE. F. J. FLYNN,	University College.
SERGE. C. J. FOLEY,	Applied Science.
LT. J. L. FOOTE,	Agriculture.
CAPT. H. S. FORBES,	University College.
PTE. J. H. FORMAN,	Applied Science.
— K. W. FORMAN,	Agriculture.
LT. F. E. FOULDS,	Agriculture.
— J. FRANCIS,	Agriculture.
LT. REG. WILSON FRANK,	Dentistry.
— W. FRANKLIN,	Agriculture.
— G. E. M. FRASER,	St. Michael's Coll.
CAPT. JOHN V. FRASIER,	Medicine.
SGT.-MAJ. G. L. FRAWLEY,	Dentistry.
— G. FRAYN,	Veterinary.
CAPT. C. W. FREEMAN,	Vict. & Medicine.
CADET A. FRY,	University College.
LT. J. C. FULLER,	Agriculture.
— A. FULTON,	Agriculture.
LT.-COL. T. B. FUTCHER,	Medicine.
— W. T. GALBRAITH,	Veterinary.
PTE. L. C. GALLAUGHER,	Medicine.
CAPT. W. F. GALLOW,	Medicine.
— B. P. GANDIER,	Agriculture.
W.-T. OPER. H. B. GANTON,	University College.
LT. C. T. P. GARBUTT,	Medicine.
— W. W. GARDHOUSE,	Agriculture.
GNR. W. G. GARLICK,	Agriculture.
ACT. MAJ. P. C. GARRATT,	University College.
LT. C. GAUTBY,	Agriculture.
— L. B. GAUTBY,	Agriculture.
PTE. J. A. GAUTHIER,	Dentistry.
— A. G. GAY,	Education.
LT. W. C. GIBBARD,	Victoria.
— A. B. GIBSON,	Veterinary.
LT. A. R. GIBSON,	Education (B.Pæd.)
— H. GIBSON,	Veterinary.
PTE. J. D. GIBSON,	University College.
CAPT. ADJ. M. H. GILLAM,	University College.
SEAMAN C. R. GILLAN,	Trinity.
PTE. ALEX. H. GILLESPIE,	University College.
LT. J. W. GILLESPIE,	University College.
— J. H. GILLIES,	St. Michael's Coll.
CPL. J. J. GLASS,	University College.
LT.-CPL. J. L. GLEASON,	Veterinary.
LT. F. GLOVER,	Applied Science.
SERGE. J. W. GOLDING,	Dentistry.
CAPT. C. A. GOOD,	Agriculture.
PTE. H. M. GOODMAN,	Applied Science.
MAJ. G. B. GORDON,	Trinity.
CADET R. J. GOSS,	University College.

PIE. R. P. GOUGH,	St. Michael's Coll.
— C. N. GRAHAM,	Agriculture.
CAPT. G. W. GRAHAM,	Medicine.
— H. W. GRAHAM,	Agriculture.
SERGE. J. A. GRAHAM,	Dentistry.
CAPT. L. B. GRAHAM,	Medicine.
CAPT. R. R. GRAHAM,	Medicine Staff.
LT. S. GRAHAM,	University College.
CAPT. A. GRAY,	Applied Science.
PIE. D. J. GRAY,	Victoria & Forestry
MAJ. JAMES ED. GRAY,	Applied Science.
PIE. J. C. GREEN,	Dentistry.
LT. L. M. GREEN,	Victoria.
— N. H. GREEN,	Medicine.
LT. A. GREEY,	Applied Science.
— A. H. GREGG,	Agriculture.
— P. S. GREGORY,	Agriculture.
— WM. P. GRIEVE,	Education.
— R. J. GRIFFIN,	Agriculture.
PIE. A. W. GROVES,	Applied Science.
— N. A. GRUNDER,	Agriculture.
CADET J. V. GUNDY,	Applied Science.
STAFF NURSE I. G. GUNN,	University College.
CAPT. R. E. GUNN,	Agriculture.
CAPT. W. F. HADLEY,	Applied Science.
— R. W. E. HAGARTY,	Applied Science.
CAPT. ERNEST AMOS HALL,	Trinity Medicine.
PIE. E. R. HALL,	Agriculture.
CAPT. G. W. HALL,	Trinity Medicine.
— J. A. HALL,	Agriculture.
LT. T. D. HALLAM,	University College.
— R. F. HALSEY,	Agriculture.
— C. J. HAMILTON,	Agriculture.
— F. W. HAMILTON,	Agriculture.
PIE. G. G. HAMILTON,	University College.
— A. S. HAMMERSLEY,	Agriculture.
— W. A. HAMMOND,	Agriculture.
— W. G. HAMMOND,	Education.
— R. HANAGAN,	Veterinary.
— M. L. HANCOCK,	Agriculture.
SPR. GEO. F. HANMER,	Victoria.
— D. HANNA,	Agriculture.
— J. E. HANNA,	Veterinary.
— W. E. HARE,	Agriculture.
CAPT. R. B. HARRIS,	Medicine.
— T. E. M. HARRIS,	Agriculture.
MAJ. F. ST. B. HARRISON,	Agriculture.
— WM. J. E. HARRISS,	Univ. Coll. & Wycl.
— D. HART,	Agriculture.
GNR. R. A. HART,	Dentistry.
PIE. H. A. HARTFORD,	Dentistry.
— R. S. HARTLEY,	Agriculture.
CAPT. F. R. HARVEY,	Medicine.
CAPT. W. H. HARVEY,	Medicine.
PIE. R. HARYETT,	Dentistry.
CAPT. OSCAR G. HASSARD,	Dentistry.
— W. HAWLEY,	Agriculture.
— J. A. M. HAY,	Education.
CAPT. WM. YATES HAYDEN,	Dentistry.
MAJ. GEO. S. HAYNES,	Applied Science.
CAPT. J. F. HAZLEWOOD,	Medicine.
— E. HEARLE,	Agriculture.
PIE. CECIL A. HEAVEN,	Trinity.
SPR. GEORGE M. HEISZ,	Dentistry.
CPL. JAMES BURN HELME,	Applied Science.
— J. A. HEMPSON,	Agriculture.
LT. F. C. HENDERSON,	Victoria.
LT. J. F. HENDERSON,	Applied Science.
LT. J. F. HENDERSON,	Agriculture.
— ORVILLE J. HENDERSON,	Education.
LT. T. D. HENDERSON,	Applied Science.
2. LT. W. B. HENDERSON,	University College.
CAPT. A. E. HENRY,	Trinity Medicine.
CAPT. W. O. HENRY,	Univ. Coll. & Med.
LT. J. W. HEPPLESTON,	Veterinary.
LT. E. C. HESSELL,	Agriculture.
— F. HETHERINGTON,	Agriculture.
LT. G. C. HEWARD,	Trinity.
PIE. J. C. HEWGILL,	Medicine.
LT. C. H. HEWSON,	Victoria.
— L. V. HIGH,	Agriculture.
LT. ARTHUR V. HILL,	Applied Science.
— E. M. HILL,	Veterinary.
— L. HILL,	Agriculture.
— W. G. HILL,	Agriculture.
— W. R. HILL,	Veterinary.
— G. HIRST,	Agriculture.
— C. W. HOARD,	Agriculture.
— J. F. D. HOCKEY,	Agriculture.
LT. R. HODDERWILLIAMS,	U.C. & Vic. Staff.
CAPT. H. J. HODGINS,	Dentistry.
— R. HOLMDEN,	Agriculture.
SPR. AUBRY S. HOLMES,	Dentistry.
CAPT. J. ELLIOT HOLMES,	Dentistry.
LT. ALBERT E. HONEYWELL,	University College.
GNR. JOHN C. HOPE,	Applied Science.

CAPT. BRUCE H. HOPKINS,	Medicine.	LT. BYRON STANLEY LONEY,	Medicine.	SERGEANT. J. MCNEVEN,	Applied Science.
— E. HOPKINS,	Agriculture.	SGT. L. C. LONG,	Agriculture.	SURG. PROBR. F. MCNEVIN,	Medicine.
PTE. HAROLD R. HOPKINS,	Applied Science.	SERGEANT. V. C. LONG,	Dentistry.	CAPT. O. A. MCNICHOL,	Trinity Medicine.
LT. H. P. HOROBIN,	Agriculture.	PTE. LESLIE LORD,	Agriculture.	— A. S. MCPHAIL,	Agriculture.
— T. F. HOTCHISS,	Veterinary.	LT. S. N. LORD,	Agriculture.	— M. C. MCPHAIL,	Agriculture.
— J. G. HOULding,	Agriculture.	MED. DET. GEO. R. LOREE,	Medicine.	SERGEANT. A. A. MACPHEE,	Dentistry.
— H. C. HUCKETT,	Agriculture.	PTE. A. M. LOW,	Univ. Coll. & Wycl.	LT. A. W. MACPHERSON,	Univ. Coll. & Med.
CAPT. F. N. HUGHES,	Trinity Medicine.	— V. C. LOWELL,	Agriculture.	CADET H. E. MACPHERSON,	Applied Science.
— W. L. HUGHILL,	Dentistry.	CAPT. WM. H. LOWRY,	Trinity Medicine.	SERGEANT. J. L. MCPHERSON,	University College.
— H. L. HUMPHREY,	Victoria.	LT. MELVILLE F. LUCAS,	Trinity Medicine.	CAPT. J. F. MCQUAY,	Medicine.
CAPT. E. W. HUNTINGFORD,	Staff Trinity.	— C. F. LUCKHAM,	Agriculture.	CAPT. J. R. MCRAE,	Trinity Medicine.
SPR. O. A. HUTTON,	University College.	PTE. SAWYER HOPE LUTHER,	Forestry.	MAJ. H. G. MCVEAN,	Applied Science.
LT. S. B. ILER,	Applied Science.	SERGEANT. JOSEPH P. LYNES,	Dentistry.	PTE. K. N. MCVICAR,	Dentistry.
FLT. S. LT. L. H. INGERSOLL,	Applied Science.	— J. A. MACADAM,	Agriculture.	— H. S. MCWHINNEY,	Agriculture.
LT. R. C. J. INGRAHAM,	Agriculture.	LT. A. L. McALLISTER,	Applied Science.	— C. J. MAHONEY,	Dentistry.
LT. ROBERT INGRAM,	Medicine.	— G. S. McALPINE,	Medicine.	— C. MAIN,	Agriculture.
MAJ. L. E. IRVING,	Trinity Medicine.	CPL. D. C. McARTHUR,	Agriculture.	SURG. H. B. MAITLAND,	Medicine.
— B. IRWIN,	Agriculture.	LT. GEORGE B. MACAULAY,	Applied Science.	LT. W. F. MALCOLM,	Agriculture.
SURG. PROBR. H. J. IRWIN,	Medicine.	CADET K. D. McBEAN,	University College.	— A. J. MANN,	Agriculture.
— H. L. IRWIN,	Agriculture.	SERGEANT. EARL S. McBRIDE,	Dentistry.	LT. WM. JAMES M. MARCY,	Medicine.
CAPT. J. R. IRWIN,	Medicine.	LT. JOHN McBRIDE,	Veterinary.	LT. ALBERT EDWARD MARK,	Dentistry.
LT. T. B. JACK,	Applied Science.	GNR. ROBERT H. McCabe,	Education.	LT. HARRY J. MARSHALL,	Applied Science.
LT. HARRY JACKSON,	Dentistry.	LT.-COL. W. G. McCALLUM,	University College	— N. A. MARSHALL,	Agriculture.
— J. S. JACKSON,	Education.	SERGEANT. H. J. McCANN,	Dentistry.	PTE. A. D. MARTIN,	Medicine.
— N. V. JAMES,	Veterinary.	LT. T. M. McCARRON,	St. Mich's. & U.C.	— G. L. MARTIN,	Agriculture.
CAPT. A. E. JAMIESON,	Trinity Dentistry.	SUB. FLT. LT. W. McCART,	Medicine.	CAPT. J. E. MARTIN,	Trinity Medicine.
— H. W. JAMIESON,	Education.	LT. J. G. McCaul,	Applied Science.	LT. H. C. MASON,	Agriculture.
SPR. GARNET R. JARDINE,	Applied Science.	CAPT. WM. A. McCLELLAND,	Medicine.	INSTR. V. O. MATCHETT,	University College
PTE. CHARLES F. JENKINS,	Applied Science.	CAPT. D. A. McCLENAHAN,	Medicine.	— H. J. MAYBEE,	Agriculture.
— HAROLD A. JOHNSON,	Applied Science.	CAPT. JAMES MACCLINTON,	Education.	SPR. P. W. MEAHAN,	Applied Science.
CAPT. SYDNEY M. JOHNSON,	Applied Science.	SERGEANT. F. D. McClURE,	Dentistry.	— C. M. MECK,	Agriculture.
CAPT. A. C. JOHNSTON,	Trinity Medicine.	— A. C. McClymont,	Agriculture.	LT. SALVATORE N. MESSINA,	University College.
GNR. J. T. JOHNSTON,	Agriculture.	— O. McCONKEY,	Agriculture.	— G. W. MICHAEL,	Agriculture.
SERGEANT. R. E. JOHNSTON,	Dentistry.	— C. A. McCONNELL,	Education.	— E. MIDDLETON,	Agriculture.
MASS. (MRS.) A. C. JONES,	Staff.	CADET R. S. McCONNELL,	Applied Science.	SERGEANT. G. J. MILLEN,	Dentistry.
SPR. C. A. JONES,	University College.	CAPT. J. C. McCORMICK,	Agriculture.	GNR. WALLACE J. MILLER,	Agriculture.
— G. E. JONES,	Applied Science.	CADET C. R. MCCORVIE,	Medicine.	— E. G. MINIELLY,	Agriculture.
— MEL JONES,	Agriculture.	LT. JOHN T. McCOSH,	Medicine.	CAPT. H. T. MINOGUE,	Dentistry.
MAJ. NEWBOLD C. JONES,	Trinity.	SERGEANT. H. J. McCREERY,	Applied Science.	LT. A. F. MITCHELL,	Veterinary.
PTE. R. S. JONES,	Trinity.	LT. A. M. McCRRIMMON,	University College.	SURG. PROBR. N. MITCHELL,	Medicine.
— S. F. JONES,	Agriculture.	CAPT. P. F. McCue,	Medicine.	PTE. ARCHIBALD E. MIX,	Applied Science.
— M. D. JORDAN,	Agriculture.	— O. D. McCulloch,	Agriculture.	SERGEANT. S. MODEL,	Dentistry.
SURG. PROBR. R. E. JOYCE,	Medicine.	— H. McCullough,	Veterinary.	GNR. VERNON G. MOLLINS,	University College.
— F. M. KARN,	Agriculture.	CAPT. G. A. McDIARMID,	Medicine.	PTE. E. MONTAGUE,	St. Michael's Coll.
— W. J. B. KAY,	Agriculture.	GNR. C. A. McDONALD,	Dentistry.	MAJ. F. F. MONTAGUE,	Applied Science.
CAPT. M. KEITH,	Applied Science.	SPR. F. J. MACDONALD,	University College.	A.A., Q.M.G. P. MONTAGUE,	University College.
PTE. JAMES KELLEHER,	Applied Science.	SPR. F. R. McDONALD,	Applied Science.	SERGEANT. J. G. MONTGOMERY,	Dentistry.
PTE. D. P. J. KELLY,	University College.	— J. A. MacDonald,	Agriculture.	MED. OFF. L. I. F. MOODIE,	Medicine.
SPR. S. KEMP,	Dentistry.	PTE. J. H. McDONALD,	Education.	LT. CHARLES H. MOORE,	Dentistry.
LT. HENRY G. KENNEDY,	Applied Science.	LT. J. M. MACDONALD,	Trinity Medicine.	SERGEANT. R. J. MOORE,	Dentistry.
CAPT. H. B. KENNY,	Victoria.	CAPT. H. H. MACDONALD,	Applied Science.	CAPT. T. W. MOORE,	Medicine.
LT. H. KENT,	Agriculture.	— THOMAS A. MACDONALD,	Education.	— W. B. MOORE,	Agriculture.
— G. A. KERSTER,	Dentistry.	CADET J. W. McDougall,	Education.	GNR. E. L. MOOREHOUSE,	Applied Science.
— J. H. KEZAR,	Agriculture.	SPR. K. J. McEachern,	Applied Science.	MAJ. W. J. MORAN,	University College.
PTE. D. G. KILGOUR,	Medicine.	CADET U. McFARLANE,	University College.	PTE. G. S. MORGAN,	Dentistry.
GNR. MARTIN KILLORAN,	Dentistry.	LT. D. G. MCGREGOR,	Agriculture.	PTE. RICHARD N. MORGAN,	Agriculture.
— C. G. KILTY,	Education.	— WILLIAM MCGREGOR,	Education.	LT. G. W. MORLEY,	Trinity.
CAPT. ALLAN KINGHORN,	Medicine.	— M. E. McGuire,	Agriculture.	PTE. J. F. G. MORRIS,	Victoria.
CPL. G. F. KINGSMILL,	Agriculture.	— T. J. McINNIS,	Medicine.	— W. D. MORRIS,	Applied Science.
CAPT. H. I. KINSEY,	Medicine.	— H. W. McIntosh,	Education.	PTE. J. D. MORRISON,	Dentistry.
MAJ. W. F. KIRK,	Education.	— N. W. McIntosh,	Agriculture.	LT. T. W. MORSE,	Agriculture.
LT. G. F. KNIGHT,	Agriculture.	CAPT. W. A. McIntosh,	Trinity Medicine.	— B. W. MORTON,	Agriculture.
— F. G. KNOWLES,	Agriculture.	CAPT. C. M. MacKAY,	Medicine.	SERGEANT. G. A. MORTON,	Dentistry.
— G. KNOWLES,	Agriculture.	SERGEANT. G. H. McKEE,	Dentistry.	LT. N. MORTON,	Medicine.
— R. G. KNOX,	Agriculture.	PTE. A. P. MacKENZIE,	Applied Science.	L.-CPL. D. G. MOUNTEER,	Victoria.
SERGEANT. C. H. KOESTER,	Dentistry.	MAJ. N. D. McKENZIE,	Agriculture.	MAJ. H. S. MUCKLESTON,	Trinity.
CAPT. F. H. KORTWRIGHT,	Applied Science.	SERGEANT. G. L. McKIBBON,	Dentistry.	S. LT. H. J. MUIR,	Medicine.
LT. NORMAN DAVID KYLE,	Medicine.	CAPT. R. E. McKIBBON,	Medicine.	CAPT. A. E. MULLIN,	Dentistry.
— A. N. LAIDLAW,	Dentistry.	LT. ALFRED H. MACKLIN,	Medicine.	SERGEANT. JAMES A. MUNN,	Dentistry.
— D. G. LAIRD,	Agriculture.	LT. JAS. H. MCKNIGHT,	Applied Science.	LT. GEORGE A. MUNRO,	Dentistry.
SERGEANT. E. T. LAJOIE,	Dentistry.	SERGEANT. D. MACLACHLAN,	Dentistry.	— J. A. MUNRO,	Agriculture.
CAPT. R. K. LAMBERT,	Victoria.	SERGEANT. J. R. McLACHLAN,	Dentistry.	LT. ALBERT H. MURPHY,	University College.
LT. WILLIAM H. LAMBERT,	Medicine.	SERGEANT. L. E. McLACHLAN,	Dentistry.	— CYRIL J. MURPHY,	Applied Science.
SERGEANT. M. P. LAMEY,	Dentistry.	SUB. LT. G. B. McLAREN,	University College.	— J. P. MURPHY,	St. Michael's Coll.
— J. H. LAURIE,	Veterinary.	LT. HENRY MACLAREN,	Univ. Coll. & Med.	PTE. N. J. MURPHY,	Dentistry.
— G. E. LAVIS,	Agriculture.	LT. H. JOHN MACLAREN,	Applied Science.	— R. MURRAY,	Agriculture.
— J. M. LAWRENCE,	Agriculture.	LT. W. H. McLAREN,	Dentistry.	— W. J. R. MURRAY,	Agriculture.
— C. W. LEA,	University College.	PTE. R. C. McLAUGHLIN,	Dentistry.	A. H. MUSGRAVE,	Agriculture.
— W. B. LEACH,	Agriculture.	LT. R. VAN N. McLAUGHLIN,	Dentistry.	GNR. L. C. MUTART,	University College.
LT. F. E. W. LEACOCK,	Medicine.	— J. C. MacLAURIN,	Dentistry.	LT. C. W. NEAL,	Agriculture.
LT.-COL. T. MCC. LEASK,	Medicine.	CAPT. H. C. McLEAN,	Medicine.	— J. C. NEALE,	Agriculture.
LT. R. C. LEE,	Applied Science.	— J. McLEAN,	Agriculture.	— W. J. NEALON,	St. Michael's Coll.
— R. M. LEE,	Veterinary.	CAPT. JAMES D. McLEAN,	Trinity Medicine.	CAPT. DAVID B. NEELY,	Medicine.
LT. C. W. LEGGATT,	Agriculture.	LT. JAMES GREY McLEAN,	Applied Science.	— CHAS. NELSON,	Agriculture.
PTE. HERBERT D. LEPPAN,	Agriculture.	CAPT. JOHN L. McLEAN,	Dentistry.	— H. J. NELSON,	Agriculture.
LT. JAS. LEVER,	Agriculture.	— J. S. McLEAN,	Agriculture.	SPR. H. M. NELSON,	Applied Science.
CAPT. C. T. LEWIS,	Medicine.	MAJ. W. T. McLEAN,	Medicine.	— W. J. NETHERTON,	Dentistry.
— R. LEWELLYN LEWIS,	Staff.	CAPT. D. S. MacLENNAN,	Univ. Coll. & Med.	— S. J. NEVILLE,	Agriculture.
— R. M. LEWIS,	Agriculture.	— A. H. MacLEOD,	Veterinary.	LT. R. H. NEW,	Applied Science.
SPR. HARVEY JOHN LIDKES,	Applied Science.	CAPT. N. McLEOD,	Medicine.	— C. M. NIXON,	Agriculture.
— H. J. LIGHT,	Agriculture.	SERGEANT. W. D. McLEOD,	Dentistry.	— W. G. NOBLE,	Victoria.
— G. J. LINDALA,	Agriculture.	PTE. E. J. McMAHON,	St. Michael's Coll.	MAJ. HAROLD G. NYBLETT,	Trinity Medicine.
— A. LINDENBURG,	Agriculture.	— T. W. McMAHON,	Veterinary.	CPL. F. C. ODELL,	Agriculture.
SERGEANT. A. LIPARI,	Univ. College Staff.	CAPT. H. C. McMORDIE,	Applied Science.	CAPT. W. E. OGDEN,	Victoria Medicine.
PTE. G. D. LITTLE,	University College.	LT. W. B. McMULLIN,	Agriculture.	— H. G. OLDFIELD,	Agriculture.
CAPT. H. M. LITTLE,	University College.	CAPT. T. J. McNALLY,	Trinity Medicine.	— A. J. ORLOWSKI,	Agriculture.

THE VARSITY MAGAZINE SUPPLEMENT

MAJ. G. M. ORR, University College.
CAPT. H. ORR, Trinity Medicine.
PTE. LEWIS DAVID ORR, Pharmacy.
LT.-COL. H. C. OSBORNE, Trinity.
CAPT. S. W. OTTEN, Medicine.
PTE. G. C. ST. L. OXLEY, University College.
PTE. A. D. O'BRIEN, St. Michael's Coll.
PTE. D. J. O'CONNOR, St. Michael's Coll.
— G. J. O'CONNOR, St. Michael's Coll.
PTE. J. J. O'CONNOR, Univ. Coll. & St.M.
— THOMAS S. O'CONNOR, St. Michael's Coll.
CADET B. A. P. O'DONNELL, Medicine.
PTE. J. G. O'FLAHERTY, App. Sc. & St.M.C.
— M. G. O'GOGARTY, Veterinary.
LT. J. M. DE C. O'GRADY, University College.
SERGT. E. J. O'LEARY, Dentistry.
CAPT. B. R. O'REILLY, Trinity Medicine.
— S. PACKHAM, Agriculture.
PTE. DOMENICO PAPA, Victoria.
— G. B. PARKER, Agriculture.
— F. PARMINTER, Veterinary.
CAPT. JOHN R. PARRY, Univ. Coll. & Med.
PTE. C. F. PASHLER, Trinity.
SERGT. E. B. PATERSON, Pharmacy.
SPR. E. L. PATERSON, Applied Science.
SERGT.-MAJ. G. PATTERSON, Victoria.
— J. F. PATTERSON, Agriculture.
— G. E. PATTON, Agriculture.
CAPT. R. A. PAUL, Applied Science.
GNR. G. E. PAULEY, Medicine.
— L. W. PEARSALL, Agriculture.
— GEORGE A. PEARSON, Education.
— H. W. PEARSON, Agriculture.
— R. M. PEART, Agriculture.
CAPT.-J. A. B. PEAT, University College.
PTE. L. D. PENGELLY, Wycliffe.
— R. D. PENHALE, Agriculture.
— S. C. PERCIVAL, Agriculture.
LT.-COL. T. E. PERRETT, Victoria.
— FREDERICK S. PHILLIPS, Education.
CADET H. S. PHILLIPS, Medicine.
LT. J. O. PLUMMER, Trinity.
LT. GEORGE G. POOK, Veterinary.
LT. WM. ARTHUR PORTER, Dentistry.
— B. C. POWYS, Agriculture.
SERGT. A. POYNTZ, Dentistry.
CADET F. N. PROCTOR, University College.
LT. H. F. PROCTOR, University College.
CAPT. C. A. PROCUNIER, University College.
CAPT. W. E. PROCUNIER, Medicine.
— H. PULLEINE, Agriculture.
PTE. N. J. QUIGLEY, Dentistry.
SURG. PROBR. H. J. QUINN, Medicine.
PTE. W. R. QUINN, University College.
— R. J. QUIRIE, Agriculture.
PTE. W. W. RACE, Dentistry.
LT. E. C. RAINBOTH, University College.
PTE. F. P. RALEIGH, Dentistry.
— R. L. RAMSAY, Agriculture.
LT. A. R. RAMSEY, University College.
LT.-COL. J. P. RANKIN, Trinity Medicine.
CAPT. R. R. RANKIN, Medicine.
SPR. J. E. RATZ, Applied Science.
— C. L. RAWSON, Agriculture.
LT. A. B. RAYMOND, Agriculture.
— D. G. READ, Agriculture.
LT. F. REED, Agriculture.
LT. W. H. REID, Dentistry.
— H. L. RENWICK, Agriculture.
— FRANK J. REYNOLDS, Dentistry.
LT. W. C. RICE, Applied Science.
— J. L. RICH, Veterinary.
CAPT. G. E. RICHARDS, Medicine.
CAPT. C. C. RICHARDSON, Medicine.
LT. C. W. B. RICHARDSON, Applied Science.
CAPT. E. F. RICHARDSON, Medicine.
PTE. T. B. RICHARDSON, University College.
CADET W. F. RICHARDSON, Medicine.
LT. ANDREW R. RICHMOND, Veterinary.
CPL. W. R. RIDDELL, Medicine.
— C. W. RILEY, Agriculture.
LT. T. F. ROACH, St. Michael's Coll.
CAPT. H. E. ROAF, Medicine.
MAJ. J. R. ROAF, Applied Science.
Q.M. M. ROBB, University College.
SERGT. W. J. ROBB, Dentistry.
MAJ. N. R. ROBERTSON, Applied Science.
— W. A. ROBERTSON, Veterinary.
NAVAL INSTR. A. ROBINSON, University College.
LT. CHRISTABEL ROBINSON, Trinity.
CAPT. D. S. ROBINSON, Trinity.
— F. ROBINSON, University College.
CAPT. W. L. ROBINSON, Medicine.
— J. C. ROGER, Agriculture.
CAPT. ALBERT HILL ROLPH, University College.
CADET A. E. ROSBOROUGH, Victoria.

— A. F. ROSS,	Agriculture.
LT. FREDERICK A. ROSS,	Medicine.
CAPT. GEORGE H. ROSS,	Dentistry.
CAPT. GORDON W. ROSS,	Medicine.
BRIG.-GEN. J. M. ROSS,	University College.
GNR. JOHN WELLS ROSS,	University College.
CAPT. MALCOLM N. ROSS,	Agriculture.
LT. OTHMAR W. ROSS,	Applied Science.
CAPT. VICTOR ROSS,	Medicine.
1. LT. W. J. ROSS,	Trinity Medicine.
CAPT. H. D. ROTHWELL,	Applied Science.
CAPT. C. C. ROUS,	Applied Science.
LT. ELMER McL. ROWAN,	University College.
CPL. ERNEST ROY,	Agriculture.
PTE. J. RUBENSTEIN,	Dentistry.
GNR. C. R. RUBIDGE,	University College.
N.S. EVA BELLE RUDDY,	University College.
— P. L. RUNNALLS,	Agriculture.
PTE. JOHN G. RUSSELL,	Victoria.
— ROBERT V. RUSSELL,	Education.
— FRANK N. RUTHERFORD,	Applied Science.
LT. N. H. RUTHERFORD,	Dentistry.
LT. W. J. RUTHERFORD,	Dentistry.
CADET G. V. RYCKMAN,	University College.
— E. J. SALTER,	Agriculture.
— H. SAMPSON,	Agriculture.
— M. SAMUEL,	Agriculture.
LT. C. E. SANDERSON,	Agriculture.
LT. T. SANDERSON,	Agriculture.
— P. L. SANDFORD,	Agriculture.
CAPT. R. D. SANSON,	Trinity.
CAPT. CHAS. G. SAUNDERS,	Veterinary.
CAPT. J. T. SAUNDERS,	Forestry Staff.
CAPT. E. SCARLETT,	Medicine.
— D. SCHWEMANN,	Agriculture.
COL. B. H. SCOTT,	Trinity Medicine.
LT. D. M. SCOTT,	University College.
— FRANK McD. SCOTT,	Education.
CAPT. GEORGE A. SCOTT,	University College.
MAJ. H. M. SCOTT,	Agriculture.
— W. M. SCOTT,	Agriculture.
— W. SCOUTEN,	Agriculture.
CADET F. V. SEIBERT,	Applied Science.
LT. HAROLD V. SERSON,	Applied Science.
— K. D. SEWELL,	Veterinary.
— C. N. SEYMOUR,	Agriculture.
— A. M. SHANAHAN,	St. Michael's Coll.
PTE. E. H. SHANNON,	Medicine.
PTE. J. D. SHAUNESSY,	Dentistry.
— C. F. SHAW,	Agriculture.
MAJ. F. P. SHAW,	Dentistry.
CAPT. GEORGE M. SHAW,	Medicine.
— H. J. SHAW,	Agriculture.
— J. G. SHAW,	Agriculture.
— T. E. SHEARER,	Agriculture.
CAPT. N. S. SHENSTONE,	University College.
LT. E. C. SHEPPARD,	University College.
CAPT. W. G. SHEPHERD,	Medicine.
MAJ. N. C. SHERMAN,	Applied Science.
— T. H. SHIELD,	Agriculture.
GNR. R. K. SHIRLEY,	Medicine.
MAJ. W. J. SHORTREED,	University College.
LT. D. B. SHUTT,	Agriculture.
— G. R. SIBBICK,	Agriculture.
— A. SIBBIT,	Agriculture.
LT.-COL. C. H. SILLS,	Trinity.
— G. SILVERTHORN,	Agriculture.
— A. F. SIMMONS,	Agriculture.
— R. SIMMONDS,	Agriculture.
CAPT. S. H. SIMPSON,	Dentistry.
PTE. R. SIMS,	Dentistry.
PTE. D. J. SINCLAIR,	University College.
PTE. L. C. SINCLAIR,	Education.
— R. SINGER,	Agriculture.
SURG.-PROBR. S. C. SKIPPER,	Medicine.
SERG. G. H. SLOAN,	Dentistry.
LT. J. G. M. SLOAN,	Medicine.
PTE. ORR H. SLOAN,	Dentistry.
CAPT. R. R. SLOAN,	Agriculture.
— G. SMEDLEY,	Agriculture.
CAPT. A. H. SMITH,	Applied Science.
MAJ. D. SMITH,	Medicine.
— F. D. SMITH,	Veterinary.
LT. F. H. SMITH,	University College.
SERG. F. L. SMITH,	Applied Science.
— G. L. SMITH,	Agriculture.
— P. V. SMITH,	University College.
CAPT. ROBERT H. SMITH,	Medicine.
— W. A. SMITH,	Veterinary.
SERG. W. H. SMITH,	Dentistry.
WT. OFFR. E. W. SMITHSON,	Applied Science.
PTE. C. H. SMYLIE,	Medicine.
PTE. R. T. SMYLIE,	Medicine.
SERG. N. W. SNIDER,	Dentistry.
SPR. H. C. SOEHNER,	Applied Science.
— J. B. SOMERS,	Medicine.

MAJ. E. C. SOUTHEY,	Trinity.
CAPT. GEORGE L. SPARKS,	Medicine.
CAPT. W. H. H. SPARKS,	Wycliffe.
PTE. H. E. SPAULDING,	Education.
CAPT. R. SPEAR,	Trinity Medicine.
— H. SPEARMAN,	Veterinary.
GNR. J. A. SPELLMAN,	Dentistry.
— W. H. SPROULE,	Agriculture.
CAPT. F. W. SQUIRE,	Trinity.
CAPT. C. L. B. STAMMERS,	Trinity.
— C. W. STANLEY,	Agriculture.
MAJ. GEORGE L. STARR,	Trinity.
— J. A. STEELE,	Agriculture.
— T. M. STEELE,	Agriculture.
— M. O. STEPHENS,	Agriculture.
SGR. W. C. STEPHENS,	University College.
— E. STEVENS,	Agriculture.
— H. E. STEVENSON,	Agriculture.
CADET P. B. STEVENSON,	Education.
— D. L. M. STEWART,	Applied Science.
SGT.-MAJ. G. O. STEWART,	Dentistry.
— HAROLD STEWART,	University College
— E. G. STILLWELL,	Agriculture.
LT. G. P. STIRRETT,	Applied Science.
— F. W. STOCK,	Agriculture.
— L. J. STOCK,	St. Michael's Coll.
— T. STODDART,	Agriculture.
CAPT. JOHN G. R. STONE,	Medicine.
— J. G. K. STONES,	Agriculture.
— H. M. STORY,	Agriculture.
CAPT. C. B. STOVER,	Dentistry.
DIET. H. I. STOWE,	University College.
SERG. JAMES G. STRACHAN,	Medicine.
LT. R. A. STRATHERN,	Dentistry.
CAPT. DURWARD STRATTON,	Dentistry.
PTE. HAROLD J. STRONG,	University College.
LT. HAMILTON J. STUART,	University College.
LT. EDWARD JOHN STUBBS,	Medicine.
LT. E. A. SULLIVAN,	Applied Science.
— J. H. SULLIVAN,	Agriculture.
— J. L. SULLIVAN,	Veterinary.
— W. J. SURGENOR,	Agriculture.
CAPT. J. G. SUTHERLAND,	Trinity Medicine.
LT. JAMES W. SUTHERLAND,	University College.
DRIVER W. F. SUTHERLAND,	Applied Science.
MAJ. N. H. SUTTON,	Medicine.
— R. G. SUTTON,	Agriculture.
CAPT. D. J. SWEENEY,	Medicine.
CADET J. E. SYDIE,	University College.
— J. G. TAGGART,	Agriculture.
PTE. J. E. TALLON,	St. Michael's Coll.
SERG. F. TAMBLYN,	Education.
CADET J. R. TANSEY,	St. M.C. & App. Sc.
LT. E. H. TAYLOR,	University College.
SERG. HAROLD D. TAYLOR,	Dentistry.
— MORLEY F. TAYLOR,	Education.
LT. NORMAN B. TAYLOR,	Medicine.
LT. R. TAYLOR,	Applied Science.
CAPT. W. H. TAYLOR,	Trinity Medicine.
CAPT. W. I. TAYLOR,	Trinity Medicine.
— W. S. TAYLOR,	Agriculture.
CAPT. C. A. TEMPLE,	Medicine.
— B. THOMAS,	Agriculture.
PTE. C. H. THOMAS,	Medicine.
LT. A. R. THOMPSON,	University College.
GNR. E. THOMPSON,	University College.
LT. EDGAR L. THOMPSON,	Dentistry.
LT. G. A. THOMPSON,	Agriculture.
CAPT. H. P. THOMPSON,	Dentistry.
— J. W. THOMPSON,	Agriculture.
LT. M. A. THOMPSON,	Dentistry.
MAJ. PERCY W. THOMPSON,	Medicine.
GNR. S. THOMPSON,	Agriculture.
MAJ. C. G. THOMSON,	Medicine.
SERG. G. A. THORNBY,	Dentistry.
CAPT. S. M. THORNE,	Applied Science.
— J. N. TIMMS,	Agriculture.
— S. R. TOMPKINS,	University College.
LT. CHARLES R. TOTTON,	Univ. Coll. & Med.
LT.-COL. R. I. TOWERS,	University College
— D. TOWNSEND,	Agriculture.
PILOT J. T. TRAVERS,	Medicine.
LT. N. H. TREADWELL,	University College.
CAPT. R. N. TRIPP,	Medicine.
LT. N. P. TRUERNAT,	Dentistry.
— J. R. TRUMPOUR,	Victoria.
CADET A. G. TURNBULL,	Applied Science.
PTE. G. C. TURNER,	U. C. and Wycliffe.
MAJ. WM. HOWARD TYTLER,	Medicine.
— E. B. UNGAR,	Veterinary.
— R. D. URE,	Agriculture.
— P. D. VAHEY,	Agriculture.
LT. ASHLEY WM. VALENS,	Medicine.
LT. JAMES N. VALENTINE,	Veterinary.
PTE. J. L. VAN CAMP,	Forestry.
LT.-COL. F. L. VAUX,	Trinity Medicine.

CAPT. HUGH D. VEITCH,	Medicine.	— A. L. WATT,	Agriculture.	CPL. JOHN SAMUEL WILSON,	Applied Science.
LT. REGINALD J. VICKERS,	Veterinary.	— M. A. WATT,	Agriculture.	GNR. M. W. WILSON,	University College.
— R. L. VINING,	Agriculture.	— G. A. WEARNE,	Agriculture.	MAJ. N. R. WILSON,	Victoria.
SERG. WENDALL W. VOSSEN,	Dentistry.	SPR. J. J. WEICKER,	Applied Science.	— W. J. WILSON,	Agriculture.
— J. W. WADSWORTH,	Agriculture.	— M. L. WEIR,	Applied Science.	— A. E. WILTSHIRE,	Agriculture.
LT. LE R. WAGNER,	Medicine.	LT. D. S. WELD,	Agriculture.	SERG. N. D. WINN,	Dentistry.
CAPT. H. C. WALES,	Medicine.	— W. E. S. WEST,	Veterinary.	CAPT. ALBERT W. WINNETT,	Dentistry.
LT. C. W. WALKER,	Medicine.	— E. A. WESTERN,	Agriculture.	BDR. J. H. WINSLOW,	Agriculture.
PTE. E. H. WALKER,	Victoria.	— H. V. WESTERN,	Agriculture.	— L. WITHROW,	Applied Science.
SERG. G. T. WALKER,	Dentistry.	CAPT. R. E. A. WESTON,	Trinity Medicine.	PTE. C. D. WOOD,	Dentistry.
— R. J. C. WALKER,	Agriculture.	LT. JAS. W. WHEELER,	Trinity Medicine.	LT. F. WOOD,	University College.
— W. WALKER,	Agriculture.	— R. E. WHITE,	Agriculture.	— W. E. WOOD,	Agriculture.
— D. W. WALLACE,	Agriculture.	— W. C. WHITE,	Medicine.	PTE. A. S. P. WOODHOUSE,	Univ. Coll. & Wycl.
CAPT. H. E. WALLACE,	Trinity.	LT. GEORGE WHITEHEAD,	Veterinary.	LT. STANLEY A. WOOKEY,	Applied Science.
SERG. J. H. WALLACE,	Dentistry.	— J. E. WHITELOCK,	Agriculture.	— H. H. WOOLLEY,	Agriculture.
CAPT. N. C. WALLACE,	Medicine.	— F. G. WHYTE,	Agriculture.	PTE. W. G. WOONTON,	Applied Science.
CAPT. JOHN J. WALTERS,	Medicine.	SPR. F. E. WICKHAM,	Medicine.	— E. H. G. WORDEN,	Education.
CAPT. W. C. WALSH,	Medicine.	LT.-COL. D. ST. J. WIGLE,	Medicine.	CAPT. J. S. WRAY,	Medicine.
SERG. A. H. WALTON,	Dentistry.	SGR. E. S. WIGLE,	University College.	CAPT. J. T. WRIGHT,	Trinity.
— B. W. WARE,	Agriculture.	— C. WILCOX,	Agriculture.	— H. M. WYATT,	Agriculture.
PTE. IVAN JOHN WARREN,	Pharmacy.	CAPT. H. G. WILLSON,	Univ. Coll. & Med.	CADET L. P. YORKE,	Applied Science.
— J. F. WATERFALL,	Agriculture.	LT. W. S. WILLSON,	Applied Science.	N.S. A. M. YOUNG,	Medicine.
— S. WATERMAN,	Agriculture.	LT. F. L. WILLIAMSON,	Dentistry.	CAPT. E. H. YOUNG,	Medicine.
PTE. D. A. WATSON,	Dentistry.	CPL. D. G. WILSON,	Medicine.	— W. T. ZIEGLER,	Agriculture.
CADET G. H. WATSON,	Medicine.	CAPT. F. C. S. WILSON,	Trinity.	CAPT. E. R. ZIMMERMAN,	Dentistry.
LT. WM. WALLACE WATSON,	Pharmacy.	CAPT. JAS. M. WILSON,	Dentistry.		

University of Bishop's College, Lennoxville, and the War

BY REV. R. A. PARROCK, LL.D., D.C.L.

Principal and Vice-Chancellor

BISHOP'S deeply appreciates the opportunity, granted by the Editor, of contributing a short article to the VARSITY MAGAZINE on the War Record of her members.

The position of the University is largely misunderstood. Bishop's was founded by the second Bishop Mountain in 1845 as the Anglican University of the Province of Quebec and still maintains that position. The Royal Charter was granted in 1853. She consists of only one College with Faculties of Arts and Divinity. The Medical Faculty was fused with that of McGill in 1905 and the Law Faculty is at present in abeyance. While the University is under the control of the Anglican Church, the Arts Course has always been open to students of all denominations and since 1903 to women, admitted as day-students.

Bishop's College School was moved from the village to its present site, adjoining the College in 1860 and since 1878 has been under the management of a separate Corporation. There is much confusion in the public mind even to-day between the College and the School.

Bishop's has always laid special stress on the benefit of the residential system, the common collegiate life being regarded as a training of the greatest importance. This feature has been seriously affected by the war. At the outbreak two resident students immediately enlisted, one with the Artillery and the other with the Infantry and both subsequently won their commissions. The latter was through most of the hard fighting that fell to the lot of the P.P.L.I. and is one of the few survivors of that famous Regiment. As soon as College opened in September 1914, military training was provided for the students and there has been a constant stream of enlistment ever since, the fifth Mounted Rifles (who trained in Sherbrooke), the McGill Siege Battery, the various Ambulance Units, and lately the Flying Corps having all in turn attracted the students of military age and fitness, and now only those

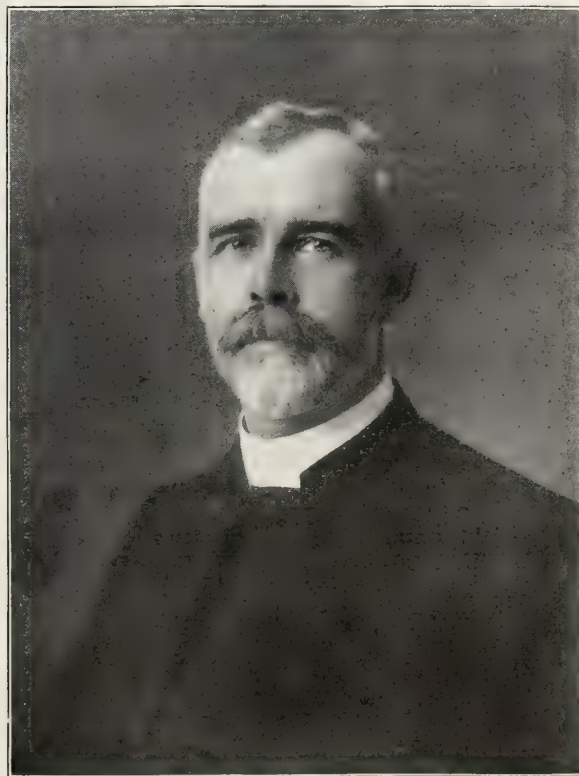
physically unfit or below military age are within the old walls, and the normal supply of new students has been most seriously affected. At the same time the number of women students has shown a remarkable increase, there being now more than three times as many women registered as before the war. It will be readily understood that this has entirely

changed the complexion of the College, but we are "carrying on" to the best of our ability, so as to be ready for the re-construction period following the declaration of peace.

Our graduates have not been behind the present students in their war-enthusiasm, and our Bursar, now Major Stewart, M.C., has been with the 42nd Highlanders since early in 1915, while our Natural Science Lecturer, who enlisted as a private in the 5th Mounted Rifles about the same time, is now a major in the Defensive Gas School. Among our Decorations are three C.M.G.'s, one Legion of Honour, one Commander of the Order of the British Empire, one Croix de Guerre, one D.C.M., and six Military Crosses. No less than seventeen of our Graduates are serving as Military Chaplains, including such men as Canon Scott, C.M.G., and Canon Almond, C.M.G. Twenty-four of our members have made the supreme sacrifice for King and Country. So far as is known, the Roll of Service contains one hundred and seventeen names, and this is quite apart from the large number of Old Boys of the School, who are serving in His Majesty's Forces.

Many of those who are unable to go to the front are assisting in different forms of war-work, as opportunity offers, and support is being given to the various Patriotic and Relief Funds.

Considering our small numbers, this is a record of which we may be justly proud, and we can look forward with courage to the time (not far distant we hope) when a just and righteous peace shall alleviate the losses and heal the wounds of war.



REV. R. A. PARROCK, LL.D., D.C.L.
Principal and Vice-Chancellor



MCGILL UNIVERSITY, MONTREAL

McGill University and the War

BY J. A. NICHOLSON, M.A., LL.D.

IT is pretty generally admitted, I think, that no class of our Canadian community (and the same is doubtless true of every allied country) has responded more readily, or in greater numbers, to the call of duty during these past four eventful years than have the eligible graduates and undergraduates of our higher seats of learning. And whilst we admit that there may have been special reasons for this result, it is nevertheless safe to conclude that the main cause is the high and compelling sense of duty which is developed by a broad and generous education.

In common with other Canadian universities, McGill has played a worthy part in this connection, not only as an institution, but also (and more especially) by means of those who had gone forth from her halls, as well as of those in the student stage who so quickly caught the spirit of service and sacrifice in the greatest cause of all.

As long ago as 1907 McGill (unique among Canadian universities in this respect) instituted a course for the training of officers under the regulations of the British War Office and after the example of a number of British universities. It was not a success, however, for several reasons: (1) because it meant extra work, no options being allowed; (2) because the instruction was given after college hours when the average student generally thinks (and often rightly too) that he has had about enough lecturing for one day, and the practical part of the course had to be taken during the summer vacation when for most college boys the earning of something to help out expenses during the coming session is the prime and pressing necessity. We were living besides in an unmilitary atmosphere and, moreover, the prizes in the army seemed few and small in comparison with those to be gained in the business and professional worlds. It is no cause for wonder, therefore, that during the seven years whilst this scheme was in operation not more than half-a-dozen qualified for commissions under it. When the war broke out it was, of course, abandoned, as intensive training then became the order of the day. Before that happened, however, a new scheme had been inaugurated, the Officers Training Corps, under the military

authorities at Ottawa. This was started in the session of 1911-12 with Major C. M. McKergow as chief instructor, and it promised to be a much more successful way of providing officers for the Canadian Militia; chiefly because the work entailed was not so heavy and because the practical and theoretical instruction went regularly hand in hand. During the first year of its course the number enrolled was fairly respectable, but not so many turned out in the second, and it looked as if this organization too was destined to prove a failure or at least to drag out a struggling existence. But the thunderbolt of August 1914 soon galvanized the sickly corps into intense vitality and there was then no need to urge enrolment. The students joined practically en masse and before the session was more than a few weeks old a full battalion was enthusiastically drilling on the campus under Major Auckland Campbell Geddes, Professor of Anatomy, (now Sir Auckland Geddes and Minister of National Service in the British Cabinet). The usefulness of the old organization was at once apparent, for there was ready at hand a body of men with sufficient knowledge of military drill to act at the outset as non-commissioned officers, some of them indeed as officers of higher rank. The majority of the principal officers were, however, McGill graduates who during the preceding two months had been taking an intensive course of training with a view to qualifying for this very work and ultimately for service abroad. These were all, or nearly all, prominent members of the University Graduates Society, a body which from the very first took the most active interest in the prosecution of the war and which to this end adopted the McGill battalion as their especial charge. But of their activities in this and other respects, more anon. When Major Geddes very early in the session left for service at home, Major A. A. Magee (by the way, a graduate of the University of Toronto) took over the training, under the command of Lieut.-Col. Robert Starke, and in a remarkably short space of time, considering all the circumstances, the battalion became noted for its breadth of military knowledge and its general efficiency.

The unit was at first rated as a provisional regiment, but

it was not long before it became authorized, notwithstanding its size, as a regular contingent of the C.O.T.C. The subsequent history of this contingent is doubtless the same as that of every other University corps and further details need, therefore, not be given. Suffice it to say that from its ranks during the past three and a half years there has flowed a constant stream of officers and men to the fighting forces of the Empire.

The following figures will show how full and strong this stream has been. During the first three years of the war there were enrolled at one time or another in the several faculties and departments of the University about 1,900 male students of eighteen years of age and over. Of these quite 20 per cent. were not British citizens or belonged to classes the members of which were, to say the least, not over-enthusiastic in the matter of enlistment. This would leave a little over 1,500 of a real recruiting constituency. It is hard to say how many of these were physically unfit for regular service, but judging by the records of the medical examiners, I should say about 20 per cent., leaving a possible total of 1,200. Of this number over 800 actually did enlist. The great majority of the remaining 400 were enrolled in the Faculty of Medicine with a view to rendering service along professional lines when they were pronounced ready. So, of the eligible ones in the number of those who might reasonably have been expected to enlist here were very few who might be called slackers, and even

that at least 1,400 of them have enlisted for one branch of the service or another across the sea.

The following table gives in summary form particulars regarding enlistments, honours, deaths, etc., all of which it must be understood are far behind the actual, as it is impossible to get complete information and to keep our records up-to-date,

MCGILL UNIVERSITY HONOUR ROLL

1. *Graduates*

	Enlisted	Wounded	Killed or Died of Wounds, or from other causes	Awarded M.C. or M.M.	Awarded D.S.O., D.C.M., D.S.C. or D.F.C.	Awarded C.M.G. or C.B. or B.E.	Other Honours Awarded
Arts.....	200	60	33	25	15	5	5
Medicine..	535	50	22	40	25	10	5
App. Science	521	110	85	65	35	5	5
Law.....	80	15	10	8	5	5	5
Agriculture	50	15	5	2	..	..	..
Dentistry..	15	2	3	..	..	..	..
Vet. Science	10	..	..	..	..	..	..
	*1,411	252	158	140	80	25	20

Of the graduates in Medicine, Law and Applied Science at least 100 are also graduates in Arts, so that the number of graduates in Arts might well be reckoned at 295.



OFFICERS AND NON-COMMISSIONED OFFICERS OF 2ND MCGILL (10TH CANADIAN) SIEGE BATTERY

they were generally able to plead special reasons for their failure to serve.

That such a creditable showing was made was due in the first place to the quality of the young men who usually attend a university, secondly to the atmosphere of the place itself, and thirdly and mainly, as has been already intimated, to the sense of duty and responsibility developed by the higher education. Had every other body of men in the country sent 67 per cent. of its available number there would have been no need of the Military Service Act except on the eminently correct score of national preservation and justice.

The record of McGill graduates and past students, who did not graduate, is no less creditable. In attempting to estimate the aid given to the Great Cause by these classes it is necessary to remember that practically all who graduated prior to the year 1892 were over military age when the war broke out. The only ones we should take into account, therefore, are those who obtained their degrees after that date, about 3,000 in all. When we consider that probably quite 20 per cent. of these were physically unfit and that the great majority of the others had contracted domestic and business ties which could not easily be broken, even for a short time, we need not wonder that the ratio of enlistments among the alumni is not so high as it was among the undergraduates. And yet it is much higher than most would suppose, when all the circumstances are taken into account. Our records show

2. *Undergraduates*

	Enlisted	Wounded	Killed or Died of Wounds, or from other causes	Awarded M.C. or M.M.	Awarded D.S.O., D.C.M., D.S.C. or D.F.C.	Awarded C.M.G. or C.B. or B.E.	Other Honours Awarded
Arts.....	210	50	30	17	7	0	2
Medicine..	95	8	8	12	..	..	..
App. Science	327	50	55	27	7	..	5
Law.....	27	8	5	5	..	..	..
Agriculture	92	33	10	7	..	..	5
Dentistry..	5	..	..	..	..	..	..
	†756	149	108	68	14	0	12

3. *Past Students*

	Enlisted	Wounded	Killed or Died of Wounds, or from other causes	Awarded M.C. or M.M.	Awarded D.S.O., D.C.M., D.S.C. or D.F.C.	Awarded C.M.G. or C.B. or B.E.	Other Honours Awarded
Arts.....	65	15	15	..	5	..	..
Medicine..	20	5	3	..	2	0	0
App. Science	142	32	25	20	5	..	5
Law.....	5	3	..	..	..	..	..
Agriculture	25	5	5	2	..	..	..
Dentistry..	5	..	..	..	..	..	..
	262	60	48	22	12	0	5

4. Summary

	Enlisted	Wounded	Killed or Died of Wounds, or from other causes	Awarded M.C. or M.M.	Awarded D.S.O., D.C.M., D.S.C. or D.F.C.	Awarded C.M.G. or C.B. or B.E.	Other Honours Awarded
Graduates.	1,411	252	158	140	80	25	20
Under- graduates	756	149	108	68	14	0	12
Past Students	262	60	48	22	12	0	5
	2,429	461	314	230	106	25	37
Total number of Honours, 398.							

*In this total are included a number of graduates in one Faculty who were studying in another at the time of enlistment and also of several who received their degrees after they left. For certain purposes they should be considered as undergraduates.

†See footnote * above.

The Victoria Cross was won by two McGill men, viz., F. A.

In the first year of the existence of the McGill Regiment (the first year of the war) the organization of a full McGill battalion for active service was at one time put forth as a serious proposition, but wiser counsels prevailed. Had the attempt been made to carry this suggestion into effect it is altogether likely that it would have proved a failure, as probably the majority of our students thought (and rightly so) that they could render better service in some other capacity; Applied Science students, for instance, as artillerymen or engineers, medical students as members of a medical corps, and among all classes not a few as officers in the infantry itself. Although the idea of a full battalion was abandoned, however, it was thought possible and, indeed, advisable that companies could be raised from time to time as reinforcements for some particular unit. One such was raised before the session was closed and left for overseas in the early summer under the command of Captain Gregor Barclay, a graduate of the University in Arts and Law. In looking about for a battalion to attach themselves to, it is not surprising that those in



NEW MEDICAL BUILDING, MCGILL UNIVERSITY (FROM CAMPUS).

C. Scrimgeour, B.A. (1901), M.D. (1905), and Fred Fisher, Applied Science (1916).

Of the staff 90 enlisted, the greater number of whom were, however, graduates of the University and are, therefore, included in the total shown above.

Many of the sons of McGill have shed lustre on her name by the distinctions they have won in different spheres of action and of these she is justly proud, but none have brought her greater honour than those who within the past few years have gone forth to the grim and terrible fields of war to battle for the ideals of freedom, righteousness and truth, which are inculcated by the true university in every land, and of none does she think with greater pride than of this same heroic band. Noble fellows all! The memory of their brave and unselfish act can never wholly fade away. Some day—we hope in the near future—a memorial hall or other imposing form of remembrance will, no doubt, be erected on the University grounds as an evidence of the esteem and regard which their glorious deeds so richly merit, with some special mark of recognition for the heroic dead.

authority should have fixed their choice on the one which was at that time the most widely (if not the most favourably) known in the Canadian forces, the Princess Patricia's Canadian Light Infantry, and so it came about that these celebrated companies became associated with a celebrated regiment, and during the first days of its hardest fighting formed its chief (perhaps its only) source of supply for its frequently depleted ranks. These companies also gave many officers to their own battalion and to other units, as might naturally have been expected. Five companies were sent over in rapid succession and three or four drafts of fifties from a sixth, which never reached its full strength, as voluntary enlistment had by that time practically ceased and more particularly as the recruiting fields for the class of men wanted for such units had been completely drained. Whilst these Universities Companies were raised at McGill it must not be supposed that they were composed of McGill students or that McGill students even formed the majority. Indeed, taking them all together students from other universities were greatly in excess of those from McGill. In the first company it is true that McGill men predominated,

but such was by no means the case in the others. As a matter of fact there were not more than 100 McGill men altogether. The other students enrolled came chiefly from the Western universities and from Toronto, whilst their friends and others of the same class made up the full quota, forming indeed the larger number. What stands to the credit of McGill in this connection is not that she contributed a certain number of men to these companies but that they were organized under her direction, that the commanding officer was in almost every case a McGill graduate, that she took a special interest in their welfare, that her campus was their particular parade ground and that two of her buildings were given up for their use as barracks during their training here. Moreover, they were adopted in a general way (the first two especially), in so far as financing them was concerned, by the Graduates Society of the University through the Officers Training Corps.

Although the Universities Companies did not bear the name of McGill there were two important fighting units that were permitted to do so—the siege batteries commanded by Major W. D. Tait, Assistant Professor of Psychology, and Sir Stopford Lauder Brunton, a graduate of the University, respectively. They are known as the 7th and 10th Canadian Siege Batteries on the field and are much more of a McGill character than even the first Universities Company. The officers of both Batteries were all McGill men, among the number being Professor Cyrus Macmillan, Assistant Professor of English, and about half of the non-coms. and gunners were also. Both of these units have been at the front for a considerable time and have done most effective service.

Mention should also be made here of another unit, the 148th Battalion which, though not organized under McGill authority, was nevertheless very closely associated with it, owing to the fact that the Commanding Officer was Col. A. A. Magee, the energetic and most efficient Major of the University Training Corps. Moreover, not a few of its officers, including Professor A. S. Eve as Major, were McGill men and a considerable number of the same class were also to be found in its ranks. This battalion always drilled on the University campus, was affiliated with the McGill C.O.T.C. by resolution of Corporation on December 8th, 1915, and its colours were formally deposited in the McGill Library on December 8th, 1917. It was generally known as one of the best-drilled and smartest regiments that ever left our Canadian shores.

While speaking of the fighting units perhaps I should mention the fact that McGill also contributed her quota (26 officers and 186 men) to the Tank Battalion which the Government authorized last spring to be furnished by the universities of Canada.

Perhaps the best known war organization, however, bearing the University's name was a non-combatant one, but none the less necessary and useful, the McGill General Hospital. This was distinctively McGillian, as all its officers were members of the Staff or graduates of the Faculty of Medicine and all the men of other ranks were drawn from the student body. The nurses were graduates of either the Royal Victoria or the Montreal General Hospital, which are so closely connected with the Faculty. The hospital was first intended to be on the lines of communication and to be of medium capacity, viz., 520 beds. Before leaving Canada, however, the capacity

was doubled. It has since been increased to 2,100 beds with a corresponding increase in the personnel, which at first consisted of 21 officers under the command of Col. H. S. Birkett, Dean of the Faculty, with Col. J. M. Elder second in command, 42 nurses and 144 of all other ranks, a total of 207. This number was increased to 318 when the original capacity was doubled. The Hospital unit sailed from Canada on May 6th, 1915, and entered on its proper work in France on the eighteenth of the following month. It was first established, as intended, on the lines of communication, but owing to unfavourable conditions, which need not be detailed here, it was soon moved to Boulogne, where it has been ever since. Up to the beginning of 1918, 100,000 patients had been treated (exclusive of surgical cases) in this hospital, the mortality being only 0.5 per cent. Among over 7,000 patients who underwent operations the mortality was only 2.5 per cent.

The sum total of the University's war work is not stated, however, when we tell of the enlistment of her sons and of the organizations created to encourage the enlistment of others. In many other ways have the authorities exerted themselves to attain the end in view, the utter defeat of the would-be bully of the world. The Principal, for instance, lost no opportunity to proclaim the justice of our cause and did much by his attitude generally to create the loyal and service-compelling atmosphere which characterized the place, and helped in no small degree to influence in the same direct on the community itself. The President of Toronto University has been equally outspoken and equally earnest, but as I am writing the story of McGill only I am not expected to dwell on the service he has rendered. The University buildings, grounds and laboratories were freely given up for the purposes of the war—meetings, barracks, research, store rooms and more recently the re-education of returned soldiers. As already stated, two of our buildings were converted into barracks for the accommodation of the several Universities Companies and of the two Siege Batteries which bore her name and these, as well as several outside battalions, were trained (in so far as they could be trained here) on the University campus, once green and beautiful, now gray and bare from the tramp of armed men. In this connection it may be mentioned that the activities of the McGill C.O.T.C. did not end with the College year, for during part of the summer of 1915 and again in 1916 a most popular, and at the same time useful, course of intensive training was given on the grounds under the direction of this organization and in this way many were fitted to take the position of non-commissioned and (with a little extra instruction) of commissioned officers in regular battalions. But perhaps the most useful purpose served by this organization was the imbuing of its members with the spirit of service and, as a consequence, hundreds of them went to the front as humble privates—the most honourable rank of all.

No sooner had the War broken out than the authorities placed at the disposal of the Government all the University laboratories which were needed for research work in connection with the new problems that had to be met, and as far as possible the staff too, and since the creation of the Department of Soldiers Civil Re-establishment our laboratories and workshops (the latter especially) have been utilized for the object in view. The machine shops were placed at the disposal of the Depart-



THE 2ND MCGILL (10TH CANADIAN) SIEGE BATTERY

ment every morning in the week and on two afternoons; the electrical laboratory for three whole days; the telegraph room full time; and the thermo-dynamic laboratory, the boiler room and the power house as could best be arranged. During the summer vacation these shops and laboratories were given up for practically the whole time. In addition to this, lecture rooms were fully opened for lectures to officers in training, under whatever authority, for Red Cross work, and more particularly for that Red Cross organization known as the McGill Women's Union, composed of the wives, sisters and, in some cases, friends of those who are associated with the University work. This has been a most active association and great quantities of material have been turned out, more particularly in the direction of sanitary dressings from sphagnum moss. To the women of McGill is due the greatest praise. They have done what they could and that be sure is not a little. What women, indeed, have done, quietly and unostentatiously, and in many cases at much sacrifice, for the comfort of the fighters and the saving of their lives during the past four years, will

circular calling upon the graduates to express their sympathy with the cause of the Allies by contributing a dollar to the Society's funds. Their next care was to provide uniforms and other equipment for the McGill Battalion and for this purpose well over \$25,000 was subscribed. In 1916, \$1,117.12 was donated to active service units of which \$892.12 went to the 148th Battalion, already referred to. In 1917, \$1,707.60 was subscribed to the 1st McGill Siege Battery under Major Tait. and in 1918 \$1,324.06 was given to the second under Sir Stopford Brunton, and \$100 to the Tank Battalion. The sum of \$2,250 was also donated to the C.O.T.C. funds in addition to the original subscription above referred to. Besides all this one of the members of the Society is contributing regularly \$100 a month to the funds of the C.O.T.C. and to the Universities Companies, now completely absorbed in the Princess Pats.

The reduction in the number of our students has, as a matter of course, seriously affected University funds. In the year 1913-14, the year before the war began, our total enrolment was 2,060; this year it is less than a thousand, a reduction



DRUMHEAD SERVICE OF 148TH BATTALION ON MCGILL UNIVERSITY CAMPUS. LIEUT.-COL. A. A. MAGEE, O.C., A GRADUATE OF TORONTO UNIVERSITY.

never, I suppose, be fully known, but they may nevertheless rest assured that the world recognizes in them (after the soldiers themselves) the greatest body of voluntary war workers in the land, who work besides with no other reward than the thanks of a grateful host and the satisfaction which the rendering of Christ-like service always gives.

What most women in a measure and many in great degree have felt and suffered during the dark days of fearful anticipation and death now happily ended, none but themselves can ever know. But even they will receive some consolation from the thought that only through sacrifice and trial and pain can progress be made and the world saved. When the history of this struggle comes to be written, one of the greatest chapters in it will be that which tells, in so far as it can be told, how women helped to win the war.

But to get back to my theme. In any account of what McGill has done one should not fail to tell of the splendid assistance given by the Graduates' Society of the University. Apart from the example set by many of its members in enlisting themselves and their strenuous endeavours to promote enlistment by word and pen, they succeeded in obtaining comparatively large sums from graduates generally for the benefit of McGill units. To begin with, they collected \$2,800 by means of what was known as the dollar vote, in response to a

of over 50 per cent, and it would not even be anywhere near that figure were it not that the number of women students has increased and the number of foreign-born males as well. In 1913-14 the fees collected from students amounted to \$241,820.80; last year only \$152,721.35 of our income was derived from this source, and during the four years of the war the loss in this connection has amounted to the very respectable total of \$284,491.27. University financing these days is no easy matter, but what sacrifices we may have to make because of reduced revenue is as nothing compared with that made by hundreds of thousands of our best citizens when they left all and followed Him.

Little did we think when, four years ago, Britain decided (how could she do otherwise?) to uphold the principles of integrity and honour and truth in the earth, that so great a toll would have to be exacted from our own fair land; and yet if we could have foreseen all the hardness and the great length of the way that lay before us, does any one suppose that we would have turned aside? We could not have done so without dishonour and eternal shame. And now that the end of that hard road has been reached and the bitterness and pain of it all will soon be past, we have no regrets, no, not even the bereaved, for they in their sorrow are in a sense consoled by the fact that the blood of their hero sons and brothers and

fathers was not shed in vain and that upon the firm foundation of their complete sacrifice will arise "a new heaven and a new earth". And what shall be done for those who return, some of them shattered in body, others in mind, and all more or less unfitted to resume the work in which they had been formerly engaged or upon which they had intended to enter? What, but to place the best positions and the largest opportunities at their disposal, to be patient and reasonable with them, remembering the hell through which they have passed and the manner of life they have had to live, and by so doing give them a fair chance of making good in whatever sphere of action their course may lie? In this process of rehabilitation a large part should be taken by the Universities of Canada. What shall we do for those who interrupted their course at the call of duty and who now wish to resume work? What but to smooth their path without removing essentials, and in this way enable them to begin their life work with the least possible delay. And what should we do for those who wish to enter? Why just something similar. Lower the bars a little and then during the first year or two at least after admission offer a correspondingly modified course for the several degrees. Some will naturally

ask if our obligation ends here. In the present impoverished condition of our universities it looks as if it must. Whatever the Government may do by way of meeting expenses in such cases they can hardly be expected to do so in full. Here lies open, therefore, a great opportunity for patriotic service. Many of those who have served their country are the cream of our citizenship. Shall we not make the best use of them by training them for whatever place they are qualified to fill? In scores of cases they cannot be so trained unless they obtain financial assistance. There ought to be thousands in Canada who would be willing to subscribe liberally to a fund for this purpose. The money could be held in trust by some central body, say the Federal Government, and distributed to the universities as required, or each university could conduct a campaign of its own and use the amount subscribed in such a way as may best serve the intended purpose. It is not too soon to let the facts be known and to begin such organization work as may be considered necessary. The idea should commend itself to all grateful hearts and the response should be immediate and equal to the need. What a boon it would be for worthy men!



"ROOM-MATES" AT VARSITY



WRITING HOME DAY

Laval University and the War

BY MGR. P. BRUCHÉSI

Archbishop of Montreal and Vice-Chancellor of Laval University

THE authorities of Laval University are confident that no one will henceforth turn towards them and inquire: "And you, what have you achieved for the honour of your country in this disastrous struggle? Yet, should there be found any one so inquiring, the men of Laval, could, figures in hand, remind the inquirer of some of their University's achievements not to be disdained.

They could appeal to the organization of the Military Hospital No. 6 with its quarters at Joinville-le-Pont in France, notwithstanding the fact that the General Hospital No. 8 at St. Cloud is mostly composed of students from Laval. They might also recall to mind the sending of a special unit by the Dental Faculty and the high encomium it received from the well-known Windemere (*Montreal Star*, May 7 h, 1918). The Laval students in engineering have mostly all joined the Royal Flying Corps, while the veterinary surgeons have been scattered amongst the different units where their help was looked for. The incitement to form a part of the Tanks Battalion was answered in two days by the sixty men required, and the O.T.C. contingent has continually numbered from two hundred and fifty to three hundred men undergoing military training three times a week, when not every evening. Another call for the constitution of a special corps of two

hundred and fifty men was received with enthusiasm by those who were not yet in active service.

Out of two thousand students who were submitted to the law, a hundred and seventy-seven only asked for exemption on account of ill-health, and one hundred and fifty were thus exempted under the first Military Act. The greater number of our students engaged in the courses which prepare for the professions, that is between seven and eight hundred, have already enlisted. And now, these numbers should be doubled, since the same is true of the branch of Laval in Montreal and the branch in Quebec as well. From the above figures the authorities of Laval can truly say that Laval has done what all our Canadian Universities did when the Government considered it a duty for Canada to send abroad more men for service. They forwarded all those whom Shakespeare would have called "The gem of all the country". And thus Laval has done a deed which no other Canadian University, for want of age, could accomplish. It added a new chapter to the first one it had written when an important group from Quebec College, of which the actual Laval University is the offspring, stood up in 1765 against an invasion of our neighbours. The next chapter Laval is ready to write when any new danger threatens our country.



THREE THOUSAND NEW STUDENTS OF COLUMBIA UNIVERSITY AT FLAG RAISING CEREMONIES BEFORE SWEARING ALLEGIANCE TO THE FLAG AS MEMBERS OF THE STUDENTS' ARMY TRAINING CORPS

The Scholar in War

BY A MEMBER OF COLUMBIA UNIVERSITY

THE scholar is in the thick of the World War. In the words of Dean F. J. E. Woodbridge, Dean of the Faculty of Philosophy, Columbia University, he has set out to make good his boast that "the pen is mightier than the sword."

Columbia, the world's largest university, has sent forth many of its leading teachers to aid the cause of democracy. Every school of the University is represented in war work. Seventy-two professors have obtained leaves of absence to engage in their special field to help the Allies. The greatest contribution in the number of faculty officers has been made by the medical school. Twenty-four professors of this school, six from the department of clinical medicine and eight from the department of clinical surgery, have temporarily left their professorial chair to ally themselves with the United States forces in this country or overseas.

The Department of Chemistry has given five professors, Electrical Engineering has granted leaves of absence for war service to four of the Faculty, and the School of Mechanical Engineering is continuing its courses with five professors lecturing in the United States Navy Gas Engine School and Assistant Professor Lincoln D. Ross, Navigation Officer at Pelham Bay Station. Professor Marston T. Bogert of the Department of Chemistry is now lieutenant-colonel in the Gas Service Corps and is with the Southeastern Department of the army near the Lorraine frontier.

Henry R. Seager, Professor in the Department of Economics, is secretary of the Labour Control Board of the United States Shipping Board. Professor John Erskine, head of the Department of English, who has recently arrived in this country to aid a special personnel committee in the selection of 1,000 college professors and instructors to give courses in the "Khaki University" overseas, is directing the Educational Department of the Y.M.C.A. in France. Professor Jefferson B. Fletcher of the English Department is a first lieutenant with the United States Army Ambulance Service in France. John W. Cunliffe, Associate Director of the School of Journalism, is

in charge of the London branch of the American University Union in Europe. Professor Carlton J. H. Hayes of the Department of History is engaged in research work for the United States Government. Professor William Campbell of the Department of Metallurgy is metallurgist in the New York Navy Yard and metallographer for the United States Bureau of Mines. John J. Coss, Assistant Professor of Philosophy, is a member of the Committee on the Classification of the Personnel of the Army.

Harry L. Hollingworth, Professor of Psychology at Barnard College, is taking part in the work of the Psychopathic Service at Bellevue Hospital, and Albert T. Poffenberger, Instructor in the same department, who was formerly lecturer to military psychiatrists on the use of mental tests, is now psychological examiner to determine the fitness of soldiers at Camp Wheeler, Georgia.

Professor Edward T. Devine has temporarily left the Department of Social Science to be chief of the Refuge and Home Relief Bureau in France. He is in charge of all relief work outside of Paris and is providing for more than 850,000 refugees from the war zone. Herbert N. Shenton of the same department has written two pamphlets on war topics: "A Message for Labour Sunday in Time of War", and "Industrial Standards in Time of War". He is a correspondent in the Department of Military Intelligence of the United States War College, and spends much of his time in lecturing on war subjects and speaking for liberty loans.

Hans Zinsser, Professor of Bacteriology in the College of Physicians and Surgeons, has left the Surgeon General's office at Washington, D.C., to take up his work in France. Alwin M. Pappenheimer, Assistant Professor of Pathology, is a captain in a Base Hospital in London; Horatio B. Williams, Assistant Professor of Physiology, is a captain in the Signal Corps Engineers; Louis Casamajor, Associate Professor of Neurology, is a captain at a base hospital in London. Frederic S. Lee, Dalton Professor of Physiology, is a member of the Physiology Committee of the Council of National Defense,

which looks after cases of industrial fatigue. Professor Lee is consulting physiologist to the United States Public Health Service and is a member of the Pennsylvania Committee on Standards for Loading Projectiles. Warfield T. Longcope is a major in the M.R.C., U.S.A. James A. Miller, Professor of Clinical Medicine, is director of the Committee for the Prevention of Tuberculosis in France. He is associated in this work with Dr. Livingstone Farrand. C. N. B. Camac, Assistant Professor of Clinical Medicine, is captain in the M.O.R.C.

The following professors in the Department of Clinical Surgery are majors in the M.O.R.C.: John B. Walker, Ellsworth Eliot, Charles H. Peck, Charles N. Dowd, Eugene H. Pool, H. H. M. Lyle; Alexis V. Moschowitz is a first lieutenant; Lewis F. Frissell is with the Tuberculosis Commission, and David Bovaird, Jr., is a major in the Base Hospital at Camp Dix, N.J. Both are assistant professors of Clinical Medicine. Nathan E. Brill, Professor of Clinical Medicine, is major and director of Base Hospital No. 3. Robert T. Frank, Associate in Cancer Research, and Joseph S. Wheelright,

is a lieutenant in the U.S.N.R.F. Frank L. Mason is a junior grade lieutenant in the United States Navy Gas Engine School at Columbia University. Dean S. Fansler, Assistant Professor of English, is active in Y.M.C.A. work in France.

Associate Professor Hal. T. Beans, of the Chemistry Department, is with the Air Production Board at Washington, D.C., and Assistant Professor J. E. Zanetti, of the same department, is a major in the Ordnance Department in France. Arthur W. Thomas of the Chemistry Department is a first lieutenant in the Medical Corps and is engaged in making food surveys of some of the cantonments. Professor Charles E. Lucke, of the School of Mechanical Engineering, is civilian director in the United States Navy Gas Engine School at Columbia University. Assistant Professors Harry L. Parr, Charles W. Thomas, and Charles C. Sleffel are instructors in the same school. All three are lieutenants; Professor Sleffel is a senior officer. Edward D. Thurston, Jr., Assistant Professor of Mechanical Engineering, was formerly an assistant inspector



STUDENTS OF NEW YORK UNIVERSITY DRILLING ON CAMPUS NEAR THE HALL OF FAME

Associate in Physiology, are captains in the Medical Reserve Corps. Ernest L. Scott, Associate in Physiology, is scientific assistant of the United States Public Health Service in the investigation of industrial fatigue in munition factories.

Dino Bigongiari, Assistant Professor in the Romance Languages, is a lieutenant in the Italian Naval Observation Corps at Venice; Henri F. Muller of the same department is sergeant in the Engineering Corps of the French Army and an instructor for the American Army in France. Arthur MacMahon of the Department of Politics is a member of the staff of the Council of National Defense. The section to which he is attached handles relations between the Council of National Defense and the State Council of Defense. Clarence A. Manning, lecturer in the Slavonic Language School, is in the Ninth Company Artillery Corps, N.Y.N.G.

James H. Kendall is lieutenant in the Gas Service, Washington, D.C.; Samuel A. Tucker is in the Raw Material Division of the Council of National Defense. Both are from the Department of Chemistry. James S. MacGregor of the Civil Engineering School is Aeronautical Engineer with the Aircraft Production Board at Washington, D.C. Assistant Professor Morton Arendt of Electrical Engineering is lieutenant, senior grade, on the Admiral's staff at the Submarine Base and School, New London, Conn. Frederick W. Hehre of the same depart-

of motor-boat construction, and is now a lieutenant and instructor in the United States Navy Gas Engine School.

Edward T. Kennedy of the department of Physical Education is in the United States Naval Auxiliary Reserve at Pelham Bay Park. Professor Albert F. Wills of Physics is with the New York Committee of National Research Council and is engaged in submarine defense investigations; Assistant Professor Harold W. Webb of the same department is with the Signal Corps of the American Expeditionary Forces and is a member of the National Research Council Sub-committee on Wireless. William Darrach, Professor of Clinical Surgery, is major in Base Hospital Unit No. 2, London.

Rupert Taylor, Instructor in English in the Extension Teaching Department, is statistical secretary at Camp Pike, Ark. James L. Dohr, Instructor in Accounting, is second lieutenant in the Chemical Section, Material Department, Aircraft Production Board. Roy S. MacElwee, lecturer on Foreign Trade, is an officer in the Columbia University Drill Corps. John R. Crawford, Assistant Professor in Classical Philology and Librarian of the Avery Art Collections, is adjutant, assisting Captain Hodder-Williams. T. Leslie Shear of the Classical Philology Department is first lieutenant with the Signal Corps, Aviation Section, Washington, D.C. Many others of the University Faculty are on service.

War Activities at Princeton University

BY DR. JOHN GRIER HIBBEN
President of Princeton University

ON October 22nd the British flag was flying from Nassau Hall, the original college building of Princeton, and this for the first time since the war of the revolution.

The cause was the visit of the British Educational Mission to the University, and we sought to honour the members of the Mission and the country which they represented by the sight of their colours freely flying in the breeze. With this building, Nassau Hall, the loyal devotion of Princeton men centres. It is a building rich in its historical memories which we very proudly cherish. Here the Continental Congress met for five months in 1783. Here Washington received the thanks of the American people for his services in the war of the revolution. Here the signing of the treaty of peace between Great Britain and the New Republic was first announced. Here the first accredited representative of a foreign nation to the United States was formally received, his Excellency, the Dutch Minister. Here in the Battle of Princeton the British soldiers were barricaded. In and about this building the British and Colonial troops struggled for mastery, foe against foe. To-day they are comrades in arms. Even in the War of the Revolution, it was not a conflict of nation against nation so much as a conflict between the liberty of the people and the autocratic power of the Crown. We fought against that power on this side of the Atlantic and the people of the mother country were fighting against that same power at home. We were allies then, though we recognized it not. To-day in the united effort to avert our common danger and to maintain our common cause we see at last face to face and realize that the blood tie between Great Britain and America has never been and never can be broken. In spite of wars, misunderstandings, rivalries and disputes, we have always been federated nations needing no formal treaties to bind us together any more than we need challenging fortresses to guard our three thousand miles of common frontier between Canada and the United States.

Princeton began the new college year under conditions without precedent in its history. The old time free life of our

campus, with its characteristic customs and traditions, will give place to the rigor of military control and discipline. The dormitories have been turned into barracks, the upper-class clubs have been closed, and the students of the University instead of taking their meals in clubs and boarding houses, will join at a common mess in the University dining halls.

Princeton has thus become wholly what it has been to a large extent since the day after the dismissal of the German Ambassador—a war camp and school. We have always felt that our highest privilege is to train men for the service of the State—for the promotion of civilization in times of peace, for the preservation and protection of our nation in times of war. And now, inasmuch as the War Department has asked the colleges and universities of our country to co-operate in furnishing to the nation at this time as rapidly and as efficiently as possible a body of young men fit to fight and worthy of the traditions of the American people, we feel it a rare privilege at Princeton to be able to respond to the Government's call and to place at the disposal of the War Department all the resources and equipment of the University in carrying out an educational programme which seeks at once to train men for their duty in war and at the same time to enable them to lose as little as possible of the mental drill and discipline which they ought to receive during those years which in the past have been devoted to academic studies.

While the military discipline and instruction of these young men have been made permanent and primary in our programme of studies, nevertheless there has been reserved by the War Department a sufficient time for the pursuit of certain academic courses as well which will give them that intellectual development and resources so imperative for the young officers of our Army and Navy. The body of our students has been divided into three groups: Those who were twenty years of age or over on September 12th, the date of registration, will be called into service the 1st of January; those nineteen years of age at the same date will be called April 1st, and the eighteen year old men about the 1st of July.



GROUP OF ALLIED LEADERS ASSEMBLED AT AMIENS, FRANCE
Left to Right—LORD DERBY, BRITISH AMBASSADOR TO FRANCE; MARSHAL FOCH; FIELD MARSHAL HAIG; GENERAL MORDACQ; PREMIER CLEMENCEAU; GENERAL WEYGAND
AND GENERAL RAWLINSON

The War Department requires all of the colleges to give instruction for twelve weeks out of the three periods into which the academic year is divided, in purely military studies. For the men who go out in January we will give this schedule of military studies and nothing else, concentrating all of our efforts upon the intensive preparation of these men for active service. Those who leave in April naturally will have twelve weeks of academic studies as well, and those who are called to service in July will have twenty-four weeks of academic studies. Each group, however, must finish the military programme before leaving. This military programme running for twelve weeks consists of four courses,—a course in Military Law and Practice, one in Hygiene and Sanitation, one in Surveying, Map Making and Map Reading and general Topography, and finally a course designated as the course on the Issues of the War, which is to cover a discussion on the remote and immediate causes of the war and on the underlying conflict of points of view as expressed in the governments, philosophies and literatures of the various States on both sides of the struggle. The purpose of this course is to enhance the morale of the members of the Corps by giving them an understanding of what the war is about and of the supreme importance to civilization of the cause for which we are fighting. This course is to be three hours a week as the others and is to be conducted by the members of our Faculty in the departments of history, government, economics, philosophy and modern literature. In connection with this course there is to be also under the supervision of the English Department a drill in English Composition. The written work is to be connected with the subject matter of the course as given in the lectures and recitations, with the double purpose of giving the men training in English Composition and at the same time of making them think out more clearly the problems which have been suggested in the course on the Issues of the War.

In addition to the Students Army Training Corps which is under command of Colonel J. A. Pearson, there has been established here in Princeton a Naval Training Unit under command of Admiral C. F. Goodrich. The naval programme is of much the same nature as the military, with the exception of course that special emphasis is placed upon the main naval course in Navigation.

While the Army and Naval Units form the main body of our undergraduates there is a small group of young men upon our campus who are not privileged to enlist in either corps, some for one reason and others for another, but in all cases, I am sure, for good and sufficient reasons. Most if not all of these young men so situated have offered themselves for war service but have been refused. Theirs is not an easy task and they are pursuing their studies here because they feel it is their duty to prepare themselves as adequately as possible to serve their country if not in arms at least in the line of their obligation and opportunity. All of us who have passed beyond the draft age can fully appreciate the burden these young men are carrying, urged by a strong desire to enter the war service and yet not permitted to do so. We of the older generation carry constantly the same burden and therefore we feel that these young men should be regarded always with a sympathetic understanding and appreciation of their situation and of their noble endeavour to conduct themselves as true patriots under such trying circumstances.

During the last year and a half we have also had associated with the University the School of Military Aeronautics in which young men from all parts of our country have been sent to prepare themselves for the service of the air. This school is under the indirect

supervision and control of the University. We have also offered the hospitality of our Graduate College buildings to the Navy Department and there has been established there at the beginning of this academic year a Naval Training School of Paymasters. The University, however, has no responsibility for the conduct of the school as this is wholly in the hands of the Navy Department.

All who are entering Princeton at this time for war service under the age of twenty-one belong to the new army of the draft. By their entrance here or in any of the colleges or universities of our country these young men are not exempted in any sense from the draft itself, and they will be called from their studies in the various educational centres at the same time when the men of their own age may be called generally throughout the country. Our undergraduates at Princeton this year, therefore, will have no privilege of exemption, but the privilege merely of fitting themselves to be of special service in the organization of the drafted army. Everyone who is a member of this army should regard it as a great and peculiar honour, for the call of duty always invests with honour the one who responds to it gladly. Every drafted man is in a very true sense a volunteer soldier if his response to the call is willing, eager and whole-hearted. The spirit of loyal service, the will to win and to endure every hardship and suffer every sacrifice in order to win, this lends a double value to obedience. If all of the men entering this army of the draft are imbued with such a spirit the end is already assured and complete triumph of our arms, and subsequently the permanent peace of the world. I have great confidence that the college men of our country will receive in the next few months such a training of mind and heart that they may well point their comrades to the goal and lead the way.

While emphasizing the need of preparedness for war we have not forgotten also the corresponding need of preparedness for peace, and we are consequently bringing to the attention of our students who are facing the possibilities of direct and immediate war service that they owe a duty to their country to prepare themselves in every possible way for the obligations of citizenship when the day of peace shall come. The young men of our land who have had the advantage of a college course, however brief that course may have been owing to the interruption of the war, have resting upon them a peculiar responsibility to make the country for which their comrades have died a land in which a nobler standard of thought and action shall prevail. The future is in the keeping of the coming generation and the colleges of our country have indeed the rare privilege of giving power and direction to the thought of those who are in their day to be the leaders of men in the building of a new people and a new world.

I cannot close this sketch of our war activities at Princeton without expressing the feeling of admiration which I share with all American citizens for the splendid achievements of the Canadian troops throughout this war and of the spirit of willing sacrifice which has prompted the hearts of the Canadian people to give to the men at the front unquestioned support and sympathy. When the chapter of Canada's part in this war is finally written it will be a memorable and glorious one. And no institution has responded more promptly and willingly to the nation's call for men than the University of Toronto. Under the inspiring leadership of your President, Sir Robert Falconer, you have added to the renown of your academic attainments the glory of a war record which generations yet unborn will proudly cherish as their most sacred tradition.



A FAMILIAR SCENE AROUND VARSITY

The Western University and the War

BY EDWARD E. BRAITHWAITE, M.A., B.D., PH.D.

President of University

THE war work of the Western University, London, though not as large absolutely as that of many of the other Canadian Universities, may nevertheless be said to measure up well in proportion to the strength of the constituency which the institution represents.

At the very outbreak of the war, the students began to enlist, but it was in the second year that the response was most general. Indeed, nearly every man in the institution whose physical condition was such as to make it probable that he could qualify offered his services at that time. As the majority of these were accepted, there have been very few male students left in the Arts Department since that period.

In the department of Medicine, too, there has been from the first a desire on the part of the students, graduates, and faculty, to be identified with the war service in the most active form feasible. About one hundred graduates of this department, or twenty per cent. of the whole number, have gone overseas, while a large number have been rendering very useful war service in various parts of this country, and in a variety of forms.

Those of the University constituency who have not been able to go overseas have not been content without having whatever share seemed open to them in forwarding the interests of the war in a multitude of ways which have been in vogue in nearly all our communities.

But the most prominent single undertaking of the University in war service has been the furnishing of a Hospital Unit.

In the early days of the war, the Medical Faculty of the University offered to provide a hospital of two hundred beds. At the time, however, the War Office did not see its way clear to accept this, as it was thought that the country had then sufficient non-combatants for every branch of the service. Some time later another offer was made verbally, but also without any definite results.

As the war progressed far into the second year, and seemed to show no signs of abating, the Board of Governors, in March 1916, sent a deputation to Ottawa, consisting of President Braithwaite and Dr. Edwin Seaborn, with another formal offer of a hospital unit. This deputation was received by the acting Minister of Militia, Sir Edward Kemp, on March 22nd, and, about a month later, a communication was received from the War Office, accepting the offer of the University, and authoriz-

ing immediate recruiting for a stationary hospital of four hundred beds, to be known as No. 10 Canadian Stationary Hospital.

The establishment was to consist of fourteen officers, thirteen N.C.O.'s, and one hundred and five men, besides twenty-seven nursing sisters. Many times the required number of medical men and nurses immediately offered their services, and it was possible to make an excellent selection for these positions. When a recruiting office was opened for the rank and file, though no advertising matter was used, and no personal canvass made, the selection of a sufficient number of those who were regarded as being the right type of person to accompany this unit was completed within the space of three weeks.

Edwin Seaborn, M.D., F.A.C.S., Senior Associate Professor of Clinical Surgery in the University, was appointed Commanding Officer of the Unit with the rank of Lt.-Colonel. The two Majors were also from the medical staff, namely, Dr. J. Cameron Wilson, and Dr. Clarence E. Brown. G. Mel-Brock, B.A., became Quarter-master, while the staff and students of both departments of the University made up a large percentage of the personnel of officers and men constituting the Unit.

On June 19, 1916, the nursing sisters left for overseas, and just two months later, the rest of the Unit followed. On arriving in England, the Unit was broken up into many parts, and sent to various hospitals in England and France for further training. A part of the force was brought together early in November, and began their work proper by taking charge of the Ravenscroft Military Hospital at Seaford in the County of Sussex. At the beginning of 1917, the scope of their work was broadened and the rest of the Unit mobilized in order to take over another hospital at Eastbourne, a short distance further along the coast. For several months, hospitals at these two places were in charge of the Western University Unit, until about the first of December, 1917, when they were sent across the Channel. Ever since that time, Colonel Seaborn and his staff have been very busily engaged "Somewhere in France" during several months of the most severe fighting of the whole war in rendering what service they have been able, to the wounded of all nationalities who have been committed to their care.

THE MESSAGE OF THE TORCH

BY

RACHEL R. TODD, M.D., C.M.

This sonnet has been dedicated to the late Lieut.-Col. John MacCrae and is an answer to the now famous lines "In Flanders' Fields"

THEY sacrifice supreme, complete and one
Is made. Thy hand failed not, nor died the song
That flamed within Thy heart when clear and strong
Reveille waked the dawn. Thy day was come.
To Thee and to Thy world of shining ones
We send this word, that Thou and They may'st sleep
In peace. "Our faith and Thine with Thee we keep,
And hold through Time the right Thy sceptre owns.

Ye are the living ones whose hands still hold
The torch, though passed to us The soft sweet dawns
Shall wake,—and noons shall follow swift the morns,—
And loves and lives shall pass,—and sunsets gold,—
But evermore, when larks and poppies sing,
Thy message of the Torch to Man will ring.



UNIVERSITY OF MANITOBA CONTINGENT OF C.O.T.C.

The University of Manitoba and the War

BY NORMAN MACDONALD, Department of History

Pro Deo, pro Patria. Semper Fidelis

IN no age have the Universities been judged by the quality and range of their public service as to-day. The war has tested the claims of the Universities to serve the state.

It is a gratifying fact to the friends of higher education, that no national institution responded more willingly or contributed more generously to the demands of this war than the Universities, and none has emerged more gloriously from the test. The response they made to meet the dangers to human liberty has left its indelible mark upon their life and work; the results are seen in depleted classes, the curtailment or total suspension of certain student functions. Cherished plans have not materialized, and money needed for educational purposes has been diverted to military activities. But the disappointment, through the drain and loss of war, has not interfered with their duty to the Empire. The Universities still remain centres of inspiration and the loftiest patriotism. They have sent their sons by the tens of thousands to stand in the breach for civilization. To the enthusiasm and idealism of youth they contributed a trained intelligence and scientific accuracy. They have solved problems that have hastened the downfall of autocracy, and safe-guarded human rights and liberties. They converted their students into disciplined soldiers, and their buildings into research laboratories and military hospitals. The changes have only served to intensify the close relationships that bind the Universities to the State; they still remain public servants, and national extremity has become the Universities' opportunity.

To the University of Manitoba, as to her sister institutions, came the call to serve, and save civilization from impending ruin. She never doubted on which side right and justice were, but threw in her lot with the friends of outraged humanity, regardless of the loss which the sacrifice involved. It is difficult to state concisely what the contribution of Manitoba University to the war has been. Our records show that over thirteen hundred graduates and undergraduates have enlisted for active service. The following summary of enlistments, up to December 29th, 1917, may be of interest:

Graduates.....	503
Undergraduates.....	567
Members of the teaching staff.....	45
Officers and employees.....	11
Pre-matriculation students.....	225

Total, excluding duplicates..... 1351

These went forward singly and by groups; in all cases representing the individual initiative and with a minimum of concerted action. However, "C" Coy. of the 61st Batt., "A" Coy. of the 196th Batt., the XIth Field Ambulance, and Dr. Prowse's Field Hospital contained units composed almost entirely of members of the University of Manitoba.

Many of these students, in the bright morning of life's promise, have shown how brave men could die; others have come safe through horrors undreamed of, covered with glory. Seventy-five sleep "Where poppies grow in Flanders' fields"; eighty have been decorated or mentioned in despatches. Many are missing and many more have returned, broken in body and shattered in health, to resume their interrupted tasks, or start in some other sphere to fit themselves for the future.

Like her sister institutions, Manitoba University was quite unprepared for active participation in the struggle for world mastery. She would have preferred the peaceful tenor of her ways to the suffering and agony of the battle-field. Duty called and she followed. In the past four years her life has been transformed to meet the needs of the Empire and fill out her own growing conception of the issues at stake. Her interests are now world-wide; as universal as the claims of the human heart for freedom and justice. With the great "Republic of Letters" that has, victoriously, proven its unselfish devotion to the highest welfare of humanity, she joined hands and heart to make democracy safe for the world and the world for democracy.

During the early days of the war, a Canadian Officers' Training Corps was formed, which has been in active and efficient operation ever since. Last year, compulsory military training, for all male students, was insisted upon. This does not mean equality of service and sacrifice; it does mean that the University has placed its resources at the disposal of the Empire, and is willing to do its utmost for victory. Several University organizations have been most active in providing comforts for those overseas, and visiting relations. Conspicuous among these are: The Ladies' Auxiliary of the 61st Batt.; the Ladies' Auxiliary of the 196th Batt.; and the XIth Field Ambulance; the R.A.F. and the Red Cross Societies. The Overseas Correspondence Club, by semi-monthly letters, has kept the absent students in close touch with the University.

It is an inspiring fact that so many students so willingly

sacrificed brilliant futures to battle in sodden trenches and under leaden skies for a principle. They said farewell to the bright dreams of their youth, convinced that their sacrifice for the world's future was worth the price they were willing to pay, if only they could conserve to humanity the great "Magna Carta" of inherited liberty. And in a glorious kinship of duty and death they have shown their devotion to the ideals they cherished. To the gates of death and beyond, they pressed, glad to serve that the feeble and unvoiced millions might be free from the tyranny of force. In their sacrifice they demand that national honour must not be sullied by base compromises; and that national treaties be not reduced to mere "Scraps of Paper". They insist that the world's peace be not left to the caprice of any perfidious nation that would trample honour and truth in the mire for selfish aggrandisement. And that we face the future unashamed, and with escutcheon clean, is because they, and many more like them, answered to the utmost the call of duty.

We cannot insist too strongly upon the refining influences which their unselfish devotion to a great cause must have upon the future of Canada. Their example shall be the light to

lead successive generations of students to choose nobly their tasks in life. Their fortitude and sacrifice has not only hastened the defeat of the enemy, it is also purging our national soul. And in death they have placed us under an undying obligation to assume the tasks their lifeless hands have dropped, and materialize in human relationship the ideals they died to preserve. Our task is easier because they have shown us the way. It is the way of service and sacrifice. We must serve our age in the same spirit in which they fought and died. They have bequeathed to us a heritage of noble ideals, which we must defend. The Universities occupy a higher place in public estimation to-day because of what our students have done and dared in this war. Through suffering, they have epitomized the quality of patriotism Canada expects of her sons in the critical days of reconstruction. It is useless to erect monuments to their memories if we forget their noble deeds and the sacrifice which they have made. The noblest monument worthy of their deeds, is to incarnate in our lives the principles for which they fought and suffered. We rise to their level of citizenship as we practise the same devotion to great causes and the same spirit of unselfish service.

Canadian Officers' Training Corps, 1918

University of Toronto

THE Curriculum of the Officers' Training Corps, which was temporarily confirmed by the Militia Department after the session of 1916-17, was again set aside during the past year, the organization of the Corps being used to carry out the regulation of the Board of Governors in regard to Military Training. Every male undergraduate was required to be medically examined by the Physical Director and if found fit was enrolled, and given instruction in elementary military drill and physical training. If unfit for this work he was assigned to a special gymnasium class, where, under competent instructors he was given setting-up exercises specially designed for his physical benefit. The results of the year's work were very evident at the close of the session in the smartness and discipline and the im-

proved physical condition of the students. This was noticeable at the opening of the Fall term of 1918, when the students of the previous year who came up again for a physical examination, were invariably placed in a higher category. Now that the war is over, it is expected that at no very distant date the military authorities will again restore to the C.O.T.C. its original functions and enable it to carry on the work for which it was primarily intended, viz., to secure from the student body of the Universities the most desirable type of men for officers, and to give them the necessary training in conjunction with their academic work, as would enable them to secure the certificate "A", qualifying them to take positions as officers in the Militia or the regular army.



PRE-WAR PHYSICAL EXERCISE AT VARSITY



SERIOUS PRE-WAR WORK



PRE-WAR RECREATION



MAIN BUILDINGS AND DEAN'S RESIDENCE, UNIVERSITY OF SASKATCHEWAN

The Contribution of the University of Saskatchewan to the War

BY WALTER C. MURRAY, LL.D.
President

WHEN the war broke out, Professors Bateman and Brehaut, with a few of the students who were in the city at the time, joined the group of volunteers taking military drill. As soon as the office opened for enlistment, they were among the first to apply, and with nearly a score of students were enrolled as privates in the 28th Battalion. During the following winter a C.O.T.C. was formed and the students were given squad drill and physical exercises. Of the students who took the drill during the winter, thirty-six enlisted in the early spring in the First University Company, and by midsummer were serving in the trenches in France. Very few of the men who enlisted in the 28th and the P.P.C.L.I. have escaped.

The various University Companies raised subsequently received some recruits from the University, and in the year 1916 Saskatchewan joined the other three Western Universities in the establishment of the Western Universities' Battalion and the Eleventh Field Ambulance. Later a draft was recruited for the P.P.C.L.I. under the leadership of Lieut. E. W. DuVal, formerly Superintendent of the C.P.R. Division in Saskatoon. Since then the great majority of the students have applied to the Flying Corps and proceeded to Texas or Toronto for their training before going overseas. Quite a number of the graduates and undergraduates have enlisted in other units.

Although the University has had in all only six or seven graduating classes, and the attendance has never exceeded four hundred, yet four hundred undergraduates and graduates and a dozen members of the staff have enlisted for overseas service. Very few received commissions. In their eagerness to go to the front they enrolled as privates, but a very large number of them have been granted commissions either on

the field of battle or after training in England or France. Nearly sixty have been killed in action, and fully twice as many more have been wounded or invalided home. Several have distinguished themselves very highly. Although our records are imperfect, we know that two have received the D.S.O., four have received the D.C.M., eleven have received the M.C., six have received the M.M. and a number have been mentioned in despatches.

The University as a corporation has not participated directly in war work, but the members of its staff have given their services to various war activities, some in the Red Cross work, others in Patriotic Fund work and a number of others in the "Greater Production" work.

The University has, however, taken a very active part in the training of returned disabled soldiers. Some of the staff have aided in the administration of the work in the province, and several departments have undertaken to give special courses for returned men. In all three hundred and fifty returned disabled men have taken the special courses at the University. Recently a survey was made of the men who had completed their course and gone back into civil life, and it was found that only two had failed to put to good use the training which had been provided for them.

The attendance at the University dropped very suddenly after the war began, and nothing but a succession of good harvests and an ever-increasing desire among the young men and women of the province to take University courses kept the attendance up to a fair number. While the number of women attending the University during the war period has more than doubled, that of the men has fallen off appreciably. The staff has very generously undertaken to make up the work of those who are overseas.



FLYING AT CAMP HOARE

Overseas Training Company

UNIVERSITY OF TORONTO C.O.T.C.

ON November 20th, 1918, we received orders to demobilize, and at the date of writing (December 9th) we have practically completed the work. During the past year we have continued to send drafts of men as candidates for commissions in the Imperial army and at the same time we have made larger contributions than hitherto to the Canadian overseas forces. In April and May, for instance, 30 of our men received commissions in the Canadian Engineers. In May we furnished 201 men—a complete company—to the First Canadian Tank Battalion to which unit we also contributed eight officers, including Mr. McNicoll and Mr. Jameson, our own subalterns. In September we sent 31 men to the Canadian Siberian Force. During October the company suffered from a serious outbreak of influenza: about 70 men, one-third of our total strength, were affected. Of these nearly 20 developed serious cases of pneumonia, and Pte. George F. Matthews died in the Base Hospital on October 15th. He was buried with military honours, the company furnishing the pall-bearers and firing party.

Lieut. H. A. C. Breuls, who had been with the company from the time of its organization left for overseas in December, 1917. He has since been seriously gassed and is still in hospital in England. In February Lieut. Heywood, who had been overseas for two years with the R.C.L.I. and Machine Gun Corps was taken on our strength, and in June Lieut. W. W. Lang, who had spent a similar length of time in France with the Royal Flying Corps, also joined us. Both these officers were University students and former members of the C.O.T.C. We have been especially fortunate since last May in having attached to us for duty R. S. M. Uden, W.O., D.C.M., formerly of the 58th Battalion C.E.F., and Sgt. Dinwiddie, D.C.M., formerly of the Coldstream Guards.

The work of the company since its organization in March, 1916, is summarized in the statistics given below. The list of casualties is far from complete: almost every former member of the company who returns from overseas is able to add one or more names to those which have already been reported.

CASUALTIES

KILLED OR DIED OF WOUNDS

Beattie, W. J.
Beaton, G. C.
Bennie, R. S.
Curtis, F. W.
Cumming, H. W. M.
Davis, M. A. D.
Durant, W. E.
Forsyth, G. O.
Foster, F. J.
Higgerty, F. E.
Hyder, A. W.
Lashford, V. C.
Lott, C. W.
Mossman, H. A.
MacFaul, W. L.
Norie-Miller, C.
Newcombe, J. C.
Quail, H. C.
Rosevear, S. W.
Reynolds, F. A.
Robinson, F. C.
Shepley, J. G.
Sutherland, H. A.
Starr, P. C.
Sloan, C. R.
Taylor, M. S.
Warren, I. J.

PRISONERS OF WAR

Beattie, A. G.
Burr, E. H.
Charlesworth, J. L.
Drew-Brook, T.
Ferguson, J. A. A.
Howard, G. E.
Malcolmson, J. E.
Taylor, N. J.

MISSING

Fleming, J. W.
Smith, D. R. M.
Snyder, Lorne
Urquhart, A. M.

WOUNDED, GASED, INJURED OR SHELL-SHOCKED

Ashdown, T. W. S.
Armstrong, V.
Banks, H. R.
Blake, H. M.
Burr, E. M.
Baker, J. A.
Banting, A. D.
Ball, R. N.
Boyd, J. E. G.
Breuls, H. A. C.
Cruse, G. A.
Calder, R. C.

Child, P. A.
Cotton, W. W.
Dales, J. F.
Deverall, E. V.
Fice, H. T.
Gordon, A. R.
Gibbard, W. C.
Gardiner, H. M.
Halliday, C. P.
Howard, G. E.
Henderson, R. E.
Hart, J. C. N.
Howson, J. H.
Johns, O. M.
King, R. H.
Kelly, F. W.
Lyon, Ross
Lyon, R. A.
Lofting, H. J.
MacLaren, R. A.
MacQueen, C. B.
McLeod, A. R.
Mackay, G. C.
MacLachlan, H. T.
Nurse, W. I.
Osborne, I.
Prueter, H. J.
Peters, A. G.
Ryan, R. W.
Snyder, V.

Stevenson, O. D.
Smith, W. R.
Smith, D. R. M.
Smith, A. G.
Stewart, W. H.
Turner, H. W.
Taylor, M. J.
Troop, J. D. E.
Worden, E. H. G.
Williams, R. H.
Yule, J. L.

HONOURS

MILITARY CROSS

Davis, M. A. D.
Deverall, E. V. (with Bar)
Halliday, C. P.
Lowndes, E. B.
Mossman, H. A.
Ruxton, J.
Worden, E. H. G.

D.S.C.

MacKay, G. C.
Rosevear, S. W. (with B

D.F.C.

Irwin, W. R. (with Bar)
Shoebottom, L. R. (with Bar



CAMP ON BACK CAMPUS

STATISTICS: SUMMARY

Imperial Commissions from C.O.T.C.	- - - - -	85
Imperial Commissions from Overseas Training Company	- - - - -	334
Commissions in Royal Flying Corps	- - - - -	76
Commissions in Royal Naval Air Service	- - - - -	36
Miscellaneous Imperial Commissions	- - - - -	7
Commissions in Canadian Expeditionary Force	- - - - -	73
Commissions in Canadian Naval Air Service	- - - - -	6
Transferred to 1st Canadian Tank Battalion	- - - - -	201
Transferred to Canadian Siberian Expeditionary Force	- - - - -	31
Transferred to other C.E.F. units as privates	- - - - -	30
Transferred to other C.E.F. units as N.C.O.'s	- - - - -	23
Transferred to C.A.M.C. to resume Medical Studies	- - - - -	11
Transferred to C.A.D.C. to resume Dental Studies	- - - - -	6
Discharged as medically unfit	- - - - -	33
Deceased	- - - - -	2
Discharged on demobilization	- - - - -	184
Total	- - - - -	1,053

War Work of University Women at Home

BY MARGARET WRONG, M.A.

IT is unfortunate that statistics of war work at home are not available, but it may safely be asserted that during term and in the summer vacation it has been the rule, not the exception, for women undergraduates to do some form of war work and that women graduates have embarked on a variety of occupations as a result of the war.

The work in the colleges during term has been confined mainly to money subscriptions to the Red Cross and to various patriotic funds, and to knitting or sewing for the Red Cross or for men at the front. The University Supply Association has claimed the bulk of undergraduate subscriptions and workers. Lately students have also helped in making the sphagnum moss dressings under the auspices of the University Women's Club. The Patriotic Tea Room of Victoria College was a device for raising money and the different College Societies have contributed to war funds. A certain amount of training for war work has also been undertaken in term time through First Aid and Agricultural classes.

Work on the land has been the best advertised of the summer activities. It is reasonable to say that in 1917 students helped materially in making fruit picking a popular form of war work. In that year University College, Victoria and St. Hilda's had their College Camps under the auspices of the Dominion Council of the Y.W.C.A. In 1918 fewer students went fruit picking and University College was the only College which filled a camp of its own, but there were students scattered through the camps on the Niagara Peninsula. The decrease in numbers was partly due to the fact that other work claimed students and also to the fact that the campaign of the previous year had produced other women workers. The information obtained regarding conditions of work, hours and wages, has been valuable. In the winter of 1917-18 the Pickers met and drew up the terms on which they would agree to work the following summer. A committee of



A VARSITY GRADUATE IN WAR TIME



"THE HAPPY WARRIOR"



"BLOSSOMS"

THE VARSITY MAGAZINE SUPPLEMENT

Pickers met a committee of the Niagara Fruit Growers Association and came to terms with them which placed the work last summer on a more satisfactory basis. University women have done other work on the land, notably in mixed



Varsity Farmerettes of 1918



LIFE IN THE OPEN

and dairy farming. Miss Harvey (Trinity), and Miss Martin (Victoria), have embarked on the management and working of a farm near Port Hope. Flax pulling and hoeing sugar beets were done in some districts. Gardening has prospered; in 1917 a St. Hildian won the first prize for her war garden in Windsor. Several graduates and undergraduates have been secretaries in the Ontario Government Employment Bureaus and have organized the supply of women for agriculture in the province. In agriculture it has been proved that women, other than foreigners accustomed to farm work, can take the place of men when necessary without injury to health or to the work in hand.

Next to the land factories have claimed their quota of University women. Graduates and undergraduates have inspected shells, operated machines in munition plants. In the summer some students went into canneries, others into woollen mills which were filling war orders. Some worked in canteens, others in welfare work in factories.

A great variety of work has claimed others, ranging from driving a motor for the R.A.F. to clerical work in military offices. Students with a knowledge of French have been used in Quebec in connection with the Military Service Act and others have been in Ottawa all summer classifying the registration cards. Others have taken the places of men in banks and offices.

Teaching in remote western schools may rank as war work and was undertaken by a number of University women in answer to an appeal for teachers. Many schools, which would otherwise have been closed were opened in this way.

In addition to those mentioned above graduates have been engaged in many different forms of war work. Some are dietitians in military hospitals; others have done good work on the Canada Food Board; several have taken the place of men in chemical laboratories; others have taken the therapy course and are teaching returned men; others are V.A.D.s. It is not possible to tabulate all the different forms of war work at home, suffice it to say that some good work has been done and much useful experience of conditions gained which should make for a better understanding on the part of University women of the society of this country and the problems of reconstruction.

Acadia University and the Great War

By G. B. CUTTEN, D.D., M.A., PH.D.

President of Acadia University

ACADIA, in common with other Universities has taken its full share of work in the war. Our present records show that 420 men have been in Military Service although we have reason to believe from the fact that new names are continually coming in, that our total has been at least 450 and probably well up to 500. Our records show that of these 48 have been killed or died of wounds, 98 have been wounded, and 6 have been made prisoners of war. Six persons have been mentioned in despatches and 36 military decorations have been awarded.

Our men were distributed in a great many different units, probably the most in any one unit were 60 who enlisted in the Nova Scotia Highland Brigade in the spring of 1916. Most of these eventually drifted into the 85th Battalion which was the senior Battalion of the Brigade and have seen splendid service at Vimy, Passchendaele, Arras, and other engagements in which the Battalion has taken part.



WAR AIDES PRACTISING MODELLING

No. 4 Canadian General Hospital University of Toronto Unit

BY DR. C. K. CLARKE
Dean of the Faculty of Medicine

ON August 15th, 1917, the Hospital was still at Salonica but the patients had fallen in number to 295. For some time before this it had been expected that the Unit would be moved so it was not a surprise when notification was received to have medical, surgical, and ordnance equipment re-checked. In addition to this at 10.30 p.m. on the same day instructions were received to the effect that at six o'clock next morning all baggage and equipment were to be ready for removal and were to be at the dock by eight. Not only that, two officers, forty-four sisters, and one hundred and eighty-nine of other ranks were to be at the White Tower at nine a.m. ready for embarkation. As may easily be imagined this meant that every one had to work at top speed, but as it sounded like "On the road to Blighty" it was accomplished within the time limits set, Major McVicar being in charge of the Unit. Twenty-seven officers and twenty of other ranks were left behind to carry out the handing over of the hospital to Lieut.-Col. Palmer, R.A.M.C., the new O.C. of the 52nd General Hospital.

Those who had gone before sailed on the "Aragan" on the 16th August, 1917. On August 18th a most disastrous fire started in Salonica in the vicinity of the Church of Twelve Apostles. Over 50,000 inhabitants were rendered homeless—many were killed. If it had not been for the exertions of the French and the British the whole city would have been obliterated. It was at this fire Capt. Van Wyck and Lewis did much to establish a record for bravery and efficiency, as they accomplished wonders, accompanied by four British Tommies. They put to flight a band of French Colonials who were looting everything they could get their hands on, but in addition saved no end of military stores by their ability and energy.

On August 21st a wireless was received stating that the Unit had arrived safely in Italy.

On September 4th, 1917, the remainder of the Unit embarked at Salonica on the Italian ship "Regina Elena" sailing in company with two other ships and escorted by two destroyers. The convoy took refuge from time to time in different harbours such as Skyros-Milos, Navarino, Corfu, Taranto, and finally the Unit reached Basingstoke, Hants., England, on September 26th, where they occupied buildings which were in the course of erection for the Park Prewett County Asylum. There were some two hundred patients in residence who had been transferred from Granville Hospital, Ramsgate, on account of the continual bombing of that institution.

Colonel Hendry took the Unit over formally from Col. J. A. Roberts on October 24th, 1917.

The Basingstoke establishment called for a capacity of 2,000 or more beds but at the time of occupation the capacity was 1,000 beds.

By October 30th 658 patients were in residence and on November 1,000 were being treated. Many changes took place in the personnel as was to be expected on account of promotions, transfers, etc.

On November 25th, 1917, Colonel Hendry decided to fall in with the Educational scheme proposed some time before, and the appointment of a board of lecturers was discussed. Lectures in English, French, Latin, Mathematics, Business, and Agriculture were proposed.

On December 5th, 1917, it was announced that the Unit had subscribed \$54,300 for the Victory War Loan, an amount exceeding that subscribed by any other hospital in England.

On December 25th the following entry in the hospital diary occurs: "This has been a very busy and enjoyable day. In the morning Col. Hendry accompanied by Col. Primrose inspected all the wards and found everybody happy as a result of the Xmas presents they received. The Red Cross Society had

provided some 600 stockings and in addition 400 had been made by the Nurses, so that every patient in the hospital was remembered. The wards looked very gay and an impromptu band had been organized among the patients. This band, headed by a piper made rounds of the hospital giving selections, more or less harmonious, in each of the wards. The patients' dining room had been specially decorated for the occasion and 850 sat down to a most elaborate repast which was served by the Nursing Sisters".

On January 30th Col. Hendry was invested with his decoration D.S.O. at Buckingham Palace.

On February 21st, 1918, Nursing Sister Davis, who was a woman of fine parts and greatly beloved, died after a long illness, the result of her residence in the East. She was buried with military honours in the Churchyard at Sherbourne St. John on February 22nd.

On February 25th, Col. Hendry sailed for Canada, on leave, Col. H. Parsons assuming command during his absence. The hospital kept increasing its accommodation until it finally reached the maximum capacity, as originally designed, and during the active campaign in the spring and summer of 1918 played a most important part in the game of war, as its splendid equipment placed it in an enviable position when called on to meet the most exacting requirements. Then again the fine qualities of the Staff made it possible to do unusually good work. Very few of the overseas hospitals have equalled it and not a little of its success is to be attributed to the active co-operation existing among the different members of the Unit. This establishment has made a most favourable impression in England as it has always preserved its University character and spirit and has been universally respected. This has been very pleasing to its many friends in Canada, as military authorities in general look somewhat askance at University Units.

When the Armistice was signed there was of course great rejoicing in the Basingstoke family and it felt impelled to take a lively interest in the quaint celebration that was staged in the sleepy old town. We cannot do better than to quote freely from an officer's letter telling of the doings of that never-to-be-forgotten day.

"Yesterday Basingstoke celebrated Peace by an old fashioned Carnival. I never thought a "tuppenny hapenny" place like Basingstoke could do so well. As a rule it is as dead as a country village and you can almost hear the grass grow, but we got the surprise of our lives. The streets were crowded and the people looked as if they had really waked up from a long sleep. The parade was a credit to it and one would expect nothing better in a place much larger. There were fully seventy floats, a large number of clowns and all sorts of queer people.

The procession was headed by a band, followed by the Mayor in all his gorgeous array of gold and feathers, the Town Council in full war paint in open carriages, the police exhibit, the fire reels and then the floats. You see Basingstoke is the headquarters of the Thornycroft Co., a company as large or larger than our Massey Harris, and they make everything from munitions to motor trucks, aeroplane engines, etc. They supplied most of the trucks as well as their test cars, and they found the material for the decorations on their own premises. Each department was allotted a truck and the rivalry was apparently keen, for they were most gorgeous affairs. I will describe some, beginning with the three which were placed at our disposal and which the Staff decorated. The first represented the operating room with all the equipment—table, patient, nursing sister, C.A. sergeant in full array, the anaesthist, the drums and all. It was excellent. No. 2

represented a ward, a patient in bed, a sister taking his pulse, and so on—also very good. No. 3 was a bunch of convalescents in full kit—the real thing.

Thornycroft had an express motor boat about 50 to 60 feet in length, on a truck. It was one of the type such as they used at Zebrugge and Ostende, and it was one of these boats they used in that wonderful romance of the war—the trip to Lake Tanganyika, in German East Africa, where the British transported their little craft through the forest on Thornycroft trucks, unknown to the enemy, and destroyed their fleet which was made up of larger and more heavily armed vessels.

These little boats have a unique way of destroying their prey. They carry a torpedo in the stern, the front of the torpedo towards the bow of the boat. The boat is steered for the object to be destroyed at a tremendous rate. There is a huge coiled spring that throws the torpedo out of the back of the boat, stern foremost, which also starts the mechanism going—the motor boat skips out of the way; the torpedo comes forward and the deed is done. The boat in the procession had a torpedo in the rack. They also had a magnificent motor boat engine, a 16 cylinder V type machine. They had too a welding shop in which they were making petrol tanks, and there were other departments represented. In comic floats the variety was good, a great many being built up from a starting point of the Kaiser, who was damned in almost every possible way, from being burned in Hades amongst a swarm of vicious looking devils, to riding in a glorified chicken coop with little Willie.

Nurse Cavell was there, tied to a tree before a firing party, Old Bill and Erbert in their dugout were on deck—the battered Belgian Cottage with Granpere and Granmere avec les pauvres enfants was very fine—the dying soldier with an angel holding his hand was moving, in fact I think the angel was praying for more movement in order to keep warm, as a chilly November afternoon was not conducive to comfort when clad in celestial garments of filmy gossamer.

Britannia was present in flowing robes. I was glad to see that Britannia was a real person, she always looked so cold and 'aughty in pictures, but yesterday her nose was red and needed constant attention just as ours did, and she looked as if she were heartily bemoaning the fate which exposed her to the damp breeze that was blowing in from the bounding billows which act as a barrier to this great and noble country. The throne was not very solid and showed signs of momentary collapse, a common enough disease these days, and as is also a common symptom, Britannia was ready for the expected

fall whenever it might come—that watchful alert look one would expect to find in her eye being a dominant feature.

The Basingstoke Band lived up to expectations. Barnum and Bailey, which in my youth was the personification of all good things was on a par with it. The leader was in gorgeous outfit with a rakish top hat which had I am sure been a feature at all weddings and funerals of the district in the last century. The mustachio of the leader was the envy of the entire crowd and I am sure could only have reached its exquisite perfection by the aid of all of the far famed preparations of Ed. Pinaud of Paris. He was evidently a local celebrity for the cheering as he passed quite drowned the music, for the orchestra seemed to be playing, although you can never tell, the world is so fraught with that dreadful camouflage these degenerate days. A battle cruiser on wheels was next, in line and numerous other festive rigs. One that caught my eye and made a special appeal, was entitled Canada. After having seen it my mind is clear as to why the Indians are so near extinction. They incidentally saw a similar arrangement, and either laughed themselves to death as did the famous child ghost of Beachborough Park, or went home and died of disgust. Even I felt my head to see if my hair was still all there and that I had not become totally bald. However youth will have its little joke and every one saw the point, but whether one was intended to or not I cannot say. A coster's cart was greatly admired, and then came Dashing Gert of the Girl Guides, late of that drama that moved us all so in the good old days, "Through by Daylight or Bust the Biler". She was rakishly gotten up on a chassis of doubtful stability—cut out wide open, and a sangfroid expression so cultivated by the female drivers of Juggernauts these days. The Land Girls came next with their vegetables, and the Boy Scouts with their bare knees. Ditto Girl Guides. A battalion of Home Guards and really the most stirring thing of the whole day, a squad of genuine old "contemptibles" about fifty strong, which included a few blind men and otherwise crippled. It was really quite wonderful and appealed as much to me as the Carnival of Venice would. It lacked only Conscientious Objectors to complete the war picture. The clowns were excellent and in some cases clever.

This is the first thing of the kind they have had since Coronation Day. In the evening there was a tremendous bonfire and pseudo fire works in the Guild Hall Square. On the whole Basingstoke did itself "proud" and I am glad that I was here to see how thoroughly these blasé Englishmen can thaw out on special occasions. I really did not think they could limber up to such an extent.

From Vimy

BY RACHEL R. TODD, M.D., C.M.

BREATHE deep, dear Land! From Vimy's ridge a fragrance rare
Thrills glorious o'er the seas. *Our Canada is there.*
The splendid sons Thy wide-flung winds have proudly bred,
Keep well the cause for which their sires so gladly bled.

Think long, dear Land! Can'st measure yet, the burning love
Enshrined within their hearts? Or have they failed to prove
To him a strange Fate left behind, that Time, nor Fame
May not outlive this deathless joy,—or deathless shame.

Drink deep, dear Land! The cup fair Glory lifts to Thee
Brims high! Each drop is poured in crimson ecstasy.
Time was when ancient gods were crowned with laurel wreath.
But see! *Thy maple bowl is rimmed with living leaves!*

Live true, dear Land! These first, rare fruits were dearly given.
Earth bears no aftermath that shall not feel their leaven.
Pray then dear Land! Thy destiny on sacrifice
Of Love, is built. Hast gift of Thine that may suffice?

Training Disabled Soldiers at the University in the Faculty of Applied Science and Engineering

BY PROFESSOR H. W. PRICE

THE Engineering Faculty of the University has been assisting three types of returned soldiers: those in hospitals throughout Canada, disabled soldiers discharged in Toronto district, and its own undergraduates who return from time to time. This article refers to the first two groups only.

INAUGURATION AND GROWTH OF THE WORK.—In June, 1917, Prof. H. E. T. Haultain of the Department of Mining Engineering, and other mining engineers, undertook to co-operate with provincial authorities in training and placing returned wounded soldiers who were miners before enlisting. It was proposed to train men more particularly in milling, sampling, and assaying. The work was undertaken for the Soldiers' Aid Commission by the Department of Mining Engineering, was successful, and is still growing.

Some months later Prof. Haultain was appointed Vocational Officer for Ontario for the Military Hospitals Commission, to develop and execute plans for retraining returned soldiers whose disabilities barred them from their previous vocations. At his request this Faculty undertook to expand the variety of training for disabled soldiers. The Department of Soldiers' Civil Re-Establishment, Ottawa, has provided funds for space, staff, and equipment, and has been most ready to extend a helping hand to all concerned, especially the returned soldier.

These classes for disabled soldiers and those in occupational therapy were under the jurisdiction of a committee of management of which Dean Ellis has been chairman. The classes, first started under the care of Prof. Wright, were much enlarged during the past summer under Profs. Price and Arkley, and are now thriving under the direction of Prof. Guess.

Prof. Haultain commenced his work as Vocational Officer with a modest staff of two stenographers. Under the Department of Soldiers' Civil Re-establishment he now has an enthusiastic organization of over 400 people, many being returned officers and men. They have surveyed industries and business organizations all over the province in their search for opportunities for disabled soldiers, and are employing every available agency for preparing the men to successfully enter new activities in which their disabilities will have the least effect.

CLASSES FOR DISABLED SOLDIERS.—Here are some of the men who have paid for Canada's honourable part in the great war. They have all sorts of disabilities, damaged sight, weakened backs, rigid joints, wooden legs, shattered nerves,

valvular heart trouble, etc. Their spirit is excellent. They have little to say of their troubles, are ambitious to improve, keen and persistent students, and earn the very best that can be done for them. Many have had comparatively limited educational opportunities. Often they are not certain about their proposed new calling. Each man is treated as an individual student till his native abilities and personal preferences are discovered. Then his training is adapted as far as possible to his requirements. At the present time 110 disabled soldiers are attending the engineering classes. About 66 men have passed through them.



WARD AIDES PRACTISING BASKETRY AND WEAVING

Mining and Assaying Class.—The men are given training in sampling, preparation of samples for assay; assaying gold, silver, and other ores; operation of concentrating tables, jigs, stamps; amalgamation, flotation, etc. Concurrently, classes are held in arithmetic, mineralogy, and just sufficient chemistry to make assaying and mineralogy intelligible. Some men have been instructed in the rudiments of surveying, rodding, chaining, and such work as usually falls to an assistant.

Special effort is made to advantageously place each man in the mining industry. Most enjoyable letters come from these men. They tell of success and of troubles, of unexpected



WARD AIDES PRACTISING WOODWORK



TEACHING WEAVING TO A DISABLED SOLDIER

salary increase from \$100 to \$150 per month, ask suggestions on problems as yet beyond their experience, and express kindly appreciation of their course at the University.

Farm Tractor Class.—The University of Toronto Athletic Association generously vacated their temporary gymnasium to accommodate the Farm Tractor and Motor Mechanics classes. The tractor men are given instruction on engines, economical

use of fuel, construction, adjustment, operation, and repair of tractors and plows. After some practice in operating the machines, the men are sent daily to actual plowing on farms near Toronto. They have plowed several hundred acres in learning the mysteries of the straight and well-turned furrow, of dealing with various kinds and conditions of ground, of laying out land for convenient work, and other vital experience. Some of the men have gone to large farms in Ontario and in the west, others are supervisors of government tractors in Ontario, one has entered the tractor manufacturing department of the Massey-Harris Co., etc.

Motor Mechanics Class.—This is the largest class. Its size and ambitions are based on the rapidly growing need for skilled men in factories and repair plants for automobiles and tractors, and for economical drivers of cars and commercial vehicles.

The men are given a thorough drilling on the general layout of automobiles, engines, carburetors, ignition, cooling and lubrication, clutches, transmission, axles and brakes, steering gear, controls, starting and lighting systems, etc. The drivers are then given training and practice in driving cars and trucks under all sorts of conditions, observing economical practices and traffic regulations, and are given experience in roadside repairs, parking of cars, reading of road maps, selection of supplies and accessories, etc. The mechanics are given a thorough experience in repairing and rebuilding various makes of cars and trucks, including work on machine tools in constructing necessary repair parts. Some men specialize on tire repairs, others on battery and ignition work.

The instruction is under the personal supervision of Major Mayall, whose experience in the automobile industry and overseas transport, and enthusiastic friendship for all disabled soldiers, are valuable assets to the men. The students are interested, busy the day through, and admirably doing their share in building a foundation for their future success.

Plan Reading and Estimating Course.—This work is adapted for men having experience in building trades. Blue prints of actual construction drawings have been obtained from the architects and engineers of Toronto, from railroad companies, builders, concrete contractors, structural steel plants, etc. The men learn to read the plans and specifications so as to clearly understand the structures represented. Drawings of portions of the work are made from assembly prints.

From the drawings they also learn to take off sizes and quantities of materials required to complete a specified undertaking, and estimate on costs. Considerable practice in calculations is involved. Some men have already been placed in good positions with consulting engineers and construction companies.

Machine Shop Calculations and Blue Print Reading.—For those who desire to become machinists or to enter engineering office work in manufacturing this course is intended. Courses of studies in arithmetic, algebraic formulas, mensuration, and mechanics are designed to open technical literature to the men. Concurrently they learn to read and make drawings such as are common in machine shop work. About half their time is spent in a shop equipped by the Russell Motor Car Co. for teaching the use of machine tools.

Those men who desire may specialize on *Mechanical Drawing*. They learn all elements necessary to make drawings for machine shops, sheet metal workers, etc. Some excellent men have graduated from this work. For example, one man is executing responsible work to the satisfaction of the Hamilton Gear Works.

Applied Electricity.—Thorough study of general principles, and experiments on direct and alternating current machinery in the University laboratories, combined with some time in the industry each man has in view, enable the students to leave us ready to earn their way in their chosen lines. Two men have entered good positions in the Laboratory of the Hydro Electric Power Commission, others have joined the operating department. Openings have appeared as rapidly as the men are ready for them.

Shoe Repairing.—Accommodation has been provided for a class under the Soldiers' Aid Commission. Some of the men are now running successful establishments of their own.



Appreciation.—The instructors of all classes have from time to time received welcome letters from former soldier students. An extract from one received from a mining man will illustrate their kindly remembrance of the University:

"In drawing to a close, I wish every success to the classes now in session for the returned men. Tell them that if they are sinking in the quicksands and will strive to get one leg out themselves, why somebody will always be glad to help them get the other one out, at least that is the way I found it. I know you have the right system and the right idea if they will listen to you as I did and profited by it.

"Give my best regards to Mr. —, —, and —, and thank them for me for their kindness and patience whilst I was attending your class."

That letter breathes the spirit of a new Alumni of the University among Canada's disabled soldiers.

OCCUPATIONAL THERAPY CLASS FOR TRAINING WARD AIDES.—The Military Hospitals Commission, and later the Department of Soldiers' Civil Re-establishment, recognized a serious need of diversional occupations for soldiers in hospitals, to relieve the toxic monotony of irksome months of confinement with its discounting effect on the efforts of the medical staff. Workshops were provided for convalescent men, in which all sorts of interesting and remunerative work were eagerly undertaken, designed as well for curative effects. It soon developed that men still confined to bed were also anxious to share in this welcome activity. To provide "ward aides" for directing such occupations in hospital wards, the Vocational Officer for Ontario requested his colleagues in the Engineering Faculty to organize classes in occupational therapy to train young women carefully selected for this service to the soldiers. The Department of Soldiers' Civil Re-establishment furnished funds for accommodation, equipment, staff, hospital uniforms, materials for work in our classes and in the hospitals, and all other necessities.

The girls and women selected were nearly all previously trained and experienced in various industries, arts and crafts. This experience, combined with the special direction given in our therapy classes, has enabled our graduates in therapy to accomplish great things for the soldiers.

The therapy classes, under the able leadership of Mr. J. W. Chester, have been remarkably successful both in results and enthusiasm. Separate work rooms were provided for study in applied design; for weaving, stencilling and block-printing; for basketry of reed and raffia, bead work, and cane chair weaving; for wood construction, toy making, carving, and art metal work; and for leather work, book binding, and block print illustrating. An average of three months in these classes combined with lectures on hospital methods, and a few weeks of half-time experience in hospital wards, constituted the course.

Shortly after the first girls entered hospital duty, calls for ward aides came to the Vocational Officer from hospitals all over Canada. At this date January 20th, 1919, 138 graduates have been sent to hospitals caring for surgical, medical, mental, tubercular, incurable, and other types of patients: Halifax 8, Montreal 24, Ottawa 1, Kingston 11, Cobourg 6, Whitby 3, Toronto 26, Newmarket 3, Gravenhurst 2, Guelph 9, Hamilton 8, St. Catharines 1, London 11, Winnipeg 6, Regina 5, Fort Qu Appelle 3, Calgary 3, Vancouver 8. At the end of February 116 others will be ready for duty, making a total of 254 efficient radiators of sunshine and help for our sick and wounded soldiers.

The reports of success from medical officers in charge of hospitals, and requests for more assistance, have been very gratifying. The soldiers are making all kinds of chairs, baskets, toys, ornaments, fancy pillows and woven goods, etc. About \$1,500 worth of their work has been made and sold in Toronto alone, and their output is growing rapidly. Much of their work is beautifully executed and coloured. For the display of this work at the National Exhibition in Toronto last year a gold medal was awarded.

FACULTY OF APPLIED SCIENCE AND ENGINEERING.—The Engineering Faculty has contributed its share of Canada's effort to win the war. Of its entire body of 1,900 graduates and undergraduates, 1,077 or 57 per cent. went overseas, and



STUDYING PLANS SPECIFICATIONS AND QUANTITIES
IN ENGINEERING WORK



SOLDIERS EXPLORING THE TECHNICAL PHASES
OF MECHANICAL PRODUCTION



DISABLED SOLDIERS IN ONE OF THE
ELECTRICAL LABORATORIES



EXHIBIT OF CREATIONS OF WOUNDED SOLDIERS

of the staff in 1914-15 nearly 25 per cent. Of those who went to France, 149 or 14 per cent. gave their lives. About 175 disabled soldiers have been given technical assistance. About 250 girls and women have been trained in occupational therapy, and sent to hospitals all over Canada. Special courses are now in progress for undergraduates returning from war work.

Re-establishment of Canadian Soldiers into Civil Life

By H. R. WORDEN

SCARCELY had the tumult and the shouting of the morning of November 11th died when the Government announced the preliminary plans for the re-establishment of Canadian soldiers into civil life. The task was so great that it was found necessary to establish a committee with an active executive as director to handle the whole problem and to co-ordinate the work of all Government departments concerned, both Dominion and Provincial, and the efforts of all bodies of voluntary workers such as the Patriotic Fund, Canadian Red Cross, Y.M.C.A., municipal leagues, etc.

COMMITTEE OF REPATRIATION AND EMPLOYMENT.—This committee is known as the Committee of Repatriation and Employment and consists of the Ministers of the following departments: Soldiers' Civil Re-establishment, Sir James Lougheed; Labour, Hon. Gideon Robertson; Interior, Hon. Arthur Meighen; Agriculture, Hon. T. A. Crerar; Immigration and Colonization, Hon. J. A. Calder, with a director in the person of H. J. Daly, a well known business organizer and consultant.

OUTLINES OF DUTIES.—The Department of Soldiers' Civil Re-establishment is the department wholly responsible for the return of the soldier to civil life. Its chief tasks in connection with the problem of demobilization have been a survey of the soldiers overseas with regard to employment requirements; the installation of an employment system in co-operation with the Department of Labour in Canada, and since its inception in February 1918, and during the existence of the Military Hospitals' Commission, which it absorbed, the return to civil life of disabled soldiers. This latter part of the task is still an important and uncompleted work, for, at the time of writing, there are between 30,000 and 40,000 wounded and disabled Canadians in hospitals and convalescent homes in France and England.

EMPLOYMENT MACHINERY.—On the Department of Labour has fallen the immediate work of organizing a chain of employment offices to deal with the requirements of returned men and civilians throughout Canada.

For purposes of demobilization the Department of Militia and Defence has divided Canada into twenty dispersal areas, the centre of each being known as a station. At each of these stations and in every city of more than 10,000 there will be one of these employment offices. Where provincial employment offices exist they will be utilized for this purpose. Where necessary, they will be installed. They will be under the direct control of the Provincial governments and will be systematized by the Dominion Department of Labour. The Government and the country have adopted the policy of preference to returned men.

As these offices will handle both civilians and returned men, the Department of Soldiers' Civil Re-establishment will have a representative in each of these offices to safeguard the interests of the returned men and see that he gets the preference. These representatives of the Department will themselves be men who have seen active service.

To the Department of Interior falls the task of handling soldiers' settlement on the land, the Soldiers' Settlement Board is the Branch of that Department. As announced by the Hon. N. W. Rowell, this problem will be dealt with more fully at the present session of Parliament (February, 1919).

On the Department of Agriculture falls the duty of supplementing the work of the Department of Interior and the matter of giving returned men agricultural courses and furnishing information in general.

The Department of Immigration and Colonization has the responsibility for the transportation to Canada of about 50,000 soldiers' wives and dependents who are overseas, including the English brides of the many Canadian soldiers who married in England. This work will be supplemented by other organizations.

CO-ORDINATION.—The Returned Soldier Commissions, which are provincial organizations, have already drawn up a basis of work in consultation with the Department of Soldiers' Civil Re-establishment, while the efforts of the Patriotic Fund, Y.M.C.A., Y.W.C.A., and other organizations of like nature, in addition to municipalities, have been co-ordinated and brought together by the Committee of Repatriation and Employment.

THE PROCESS.—Contact with the returned man has been made through men who have also seen service and as far as possible the department employs only returned men. The work of connecting the men with the job does not stop at the survey of the men in England and the establishment of the employment offices at home. Overseas the representative of the Department of Soldiers' Civil Re-establishment has conducted a campaign of publicity among the men, many of whom have signed cards stating what they wish to do on their return. These cards have been returned to Canada for tabulation. At the same time surveys of all industries in Canada were conducted by technical experts of the Department of Labour, who established data in regard to vacancies existent and likely to occur in each instance. At the same time, the Government announces an extensive programme of public works is to be launched and a strong appeal to all employers to stand by their promises to keep the posts open for the men who enlisted and went overseas.

The granting by the Militia Department of an additional post discharge pay in proportion to service is a great help in bridging the gap between leaving the army and finding employment.

VOCATIONAL TRAINING.—For over a year an education campaign has been conducted by the Department of Soldiers' Civil Re-establishment in connection with the medical care and vocational training of returned disabled men, and the public have been kept well acquainted with the work. What results have been achieved is indicated by the fact that on January 1st, 1919, the Department of Soldiers' Civil Re-establishment Medical Service had in its care 2,641 patients all of whom were on pay and allowances, and 1,301 out-patients. Of the in-patients 1,263 were suffering from tuberculosis. These in-patients were distributed in 27 sanatoria either wholly or partly under the control of the Department of Re-establishment.

On the same date there were 3,189 men so disabled by war that they could not return to their pre-war occupations, taking courses in industrial re-education (Vocational Training) under the department's care—also on pay and allowances; while there were 2,050 convalescent men not on pay and allowances taking curative courses in such handicraft and other occupations as their condition allowed. On that date 8,004 courses had been granted, while 2,063 men had graduated from such courses and ready for employment, many of them being absorbed by the industries in the shops in which they received training. On June 30th, 1917, there were only 544 men in training.

A diversity of occupations has always been the aim of the Vocational Branch of the department and in November, 1918, there were as many as 177 different trades, occupations or professions being taught.

Canada has reason to be proud of her system of re-educating disabled men for the system has been copied by the United States and Australian governments, while at the inter-allied conference relative to the after-care of wounded soldiers held in England in May last, it was admitted that Canada lead the world in fulfilment of this duty.

The complete system under which the work is conducted may be gauged from the fact that the Department has 13 units (roughly corresponding to the Military Districts) for the administration of the work throughout Canada—there being a head office in each unit.

Index to Advertisements

The Advertisers in this Supplement are foremost in their line. Read their announcements.

	PAGE		PAGE
Acknowledgment.....	142	Hamilton Gear & Machine Co., Limited.....	163
Aikenhead Hardware, Limited.....	176	Hancock, T. H.....	180
Alexander Hamilton Institute.....	179	Hardware Co. of Toronto, Limited.....	174
Anglo-Canadian Leather Co., Limited.....	158	Hind & Harrison Plush Co.....	167
		Holden-Morgan Co., Limited.....	162
		Hoyt Metal Co.....	173
Bank of Montreal.....back of front cover		Inglis, John, Co., Limited.....	177
Banwell Hoxie Wire Fence Co., Limited.....	173	Johnston, W. R. & Co., Limited.....	152
Barber-Ellis, Limited.....	154	Leishman, Wm. H. & Co., Limited.....	184
Bauer & Black, Limited.....	153		
Bertram, John & Sons, Co., Limited.....	165	Macdonald, Randolph, & Co.	173
Biltmore, Hotel.....back cover		Manhattan, Hotel.....back cover	
Bongard, Ryerson & Co.	181	Maple Leaf Milling Co.	178
British American Oil Co., Limited.....	175	Matthews-Blackwell, Limited.....	167
Brown Bros., Limited.....	184	McGuire, W. J., Limited.....	174
Brunner, Mond Canada, Limited.....	145	McPherson, John & Co., Limited.....	153
Burlington Steel Co., Limited.....	173	Metropolitan Life Insurance Co.....	149
		Missoula Mercantile Co.....	173
Campbell Flour Mills Co., Limited.....	168		
Canada Cycle & Motor Co., Limited.....	161	Pearcy, Sanderson, & Co., Limited.....	175
Canada Machinery Corporation, Limited.....	151	Prudential Insurance Co. of America.....	148
Canada Permanent Mortgage Corporation.....	181		
Canada Show Case Co.	184	Quebec, Province of.....	147
Canadian Bank of Commerce.....	1		
Canadian Government Annuities.....	146	Riordan Pulp & Paper Co., Limited.....	155
Canadian Laundry Machinery Co., Limited.....	180	Robin Hood Mills, Limited.....	169
Canadian Oil Companies, Limited.....	175		
Commodore, Hotel .....back cover		Sanford, W. E. & Co.	152
Cox, W. H. Coal Co., Limited.....	157	Simpson, Jos., Sons, Limited.....	153
		Smith, John B. & Sons, Limited.....	157
Davies, Wm. Co., Limited.....	170	Standard Bank of Canada.....	2
Department of Immigration.....	160	Stark, John & Co., Limited.....	181
Department of Lands, Forests and Mines.....	3	Steel Co. of Canada, Limited.....	164
Dominion Bank.....	2	Swift Canadian Co., Limited.....	171
Dominion Cannery, Limited.....	174		
Dominion Natural Gas Co., Limited.....	180	Temiskaming & Northern Ontario Ry. Comm'n.....	184
Dominion Radiator Co., Limited.....	172	Toronto Hardware Mfg. Co., Limited.....	174
Dominion Steel Foundry Co., Limited.....	156	Toronto Structural Steel Co., Limited.....	180
Dunlop Tire & Rubber Goods Co., Limited.....	160	Turnbull, C. Co. of Galt, Limited.....	152
Eckhardt, H. P. & Co., Limited.....	168	Union Carbide Co. of Canada, Limited.....	174
Electric Steel & Metals Co., Limited.....	172		
		Vulcan Crucible Steel Co.....	173
Fess Oil Burners, Limited.....143-144			
Frankel Bros., Limited.....	174	Walker House.....inside back cover	
		Washburn-Crosby Co.	150
Garvin Machine Co.....	176	Welland Vale Mfg. Co.....	166
Gillette Safety Razor.....	182	Williams, A. R. Machinery Co., Limited.....	144
Goldie & McCulloch Co., Limited.....	151	Williams, H. H. & Co., Limited.....	181
Gourlay, Winter & Leeming, Limited.....	181	Williams, R. S. & Sons, Co., Limited.....	183
Graton & Knight Mfg. Co.	150	Willys-Overland, Limited.....	161
Gunns, Limited.....	4	Wood, Alan, Iron & Steel Company.....	150
Gutta Percha & Rubber, Limited.....	159		

Here you will find the names of the firms whose generous patronage made this publication possible.

Acknowledgment

The following is the list of Patrons who have contributed to the VARSITY MAGAZINE SUPPLEMENT funds
but who are not listed as advertisers

Allegheny Steel Co.	Jackson, George D.
Antrim Iron Co.	James, Arthur Curtis
American Ammunition Co., Inc.	Jolley, Jas. & Sons, Limited
American Metal Co., Limited	
Armstrong Cork Co.	Kerr Lake Mining Co., Limited
	Kupper, Herman C.
Baltimore Tube Co., Inc.	Leaside Munitions Co., Limited
Banfield, W. H. & Sons, Limited.	Long, E. Mfg. Co., Limited
Brock, W. R. & Co., Limited	
Brown, Boggs Co., Limited	MacDonald, J. H. Lumber Co.
Brown's Copper & Brass Rolling Mills, Limited	McColl Bros. & Co.
Buffalo Foundry & Machine Co.	Medland Bros., Limited
	Metal Shingle & Siding Co., Limited
Cadwell, E. B. & Co., Inc.	Midland Engine Works Co.
Carpenter Steel Co.	Minerals Separation North American Corporation
Champion Machine & Forging Co.	
Childs Company	Newlands & Co., Limited
Church & Dwight, Limited	New Ontario Colonization Co., Limited
Cincinnati Milling Machine Co.	Nipissing Mining Co., Limited
Columbia Steel & Shafting Co.	
Crosby, Wm. H. of Crosby & Co., Buffalo	Pattinson, Geo. & Co.
	Provincial Paper Mills Co., Limited
Dominion Bridge Co., Limited	
Dominion Natural Gas Co., Limited	Rockwood Oil & Gas Co., Limited
du Pont, Pierre S.	Root & Van Dervoort Engineering Co.
Eddy Bros. & Co., Limited	
	Shevlin-Clarke Co., Limited
Fitzsimons, The, Co., Youngstown, Ohio	Slingsby Mfg. Co., Limited
Forbes, R. Co., Limited	Smith Mfg. Co., Limited
Freyseng Cork Co., Limited	
	Tallman Brass & Metal Co.
Galt Knitting Co., Limited	Toronto Type Foundry Co., Limited
Gurney Scale Co.	Trees, Samuel & Co., Limited
Hamilton Bridge Works Co., Limited	Wells Bros. of Canada, Limited
Hamilton Cotton Co.	West Leechburg Steel Co.
Higel, Otto Co., Limited	Wickes Bros.
Hope Operating Corporation	Wilkes, Miss, Galt, Ontario
Hurlbut, The, Co., Limited	

Fuel Oil as a Heat Producing Agent

Among the numerous discoveries and inventions of this age, a period which in this respect has been the most prolific in the history of the world, fuel oil as a heat and power producing agent is destined to rank as one of the great discoveries of our time. Its adoption by the British Navy fully demonstrates its value and utility. Had it not been for the supply of oil drawn from the oil fields of the United States and Mexico the British Navy would not have been able to render the efficient service it did in the great determining factor in the triumph of the Allies.

Fuel oil has been successfully used by many of the railroads in the United States. It has been successfully used by many of the large industrial plants of the United States, such as Armour's, Swift's and many others. Fuel oil is being extensively used in the State, Municipal and Public buildings of the United States and in Toronto we have over 100 installations of Fuel Oil Burners installed by Fess Oil Burners of Canada, Ltd., Toronto. We are authoritatively informed that all of these plants are giving absolute satisfaction. The installation of an oil burner plant in the home and out-buildings of Sir John Eaton is one of the latest equipments of this kind placed in Toronto, and those interested in this method of heating residences and out-buildings should inspect this plant. The Simpson Mail Order Building has also an oil equipment.

Oil Fuel is an ideal one. It comes to your factories in tank cars or through pipe lines; the opening of a valve admits it to the storage tanks, automatic appliances feed the oil to the furnaces where it produces a perfectly even fire, burns without smoke, increases the capacity of the boiler, develops steam rapidly and leaves no dust, dirt or ashes behind. It lengthens the life of the furnace and boiler and reduces the item of labour to a minimum. It is always under absolute control of the operator, and the simple opening of a valve, the lighting of a torch, and the fires are kindled. By the closing of this same valve, the flames are extinguished and the fuel cut off.

Some economics arising from the use of fuel oil cannot be accurately estimated in making comparison with coal, and sight is entirely lost of many of the most vital reasons for its adoption. When an oil fire is extinguished it leaves behind no burning embers to slowly give off its heat without producing in energy its mechanical equivalent, which in many instances is a serious loss. Oil fires are never banked. There is practically no deterioration of the furnace, because there is no abrasion of the fire brick and no loss in grate bars.

The beginning of combustion of coal or wood is sparks—the ending is ashes—either are dangerous and by insurance companies are considered more hazardous than a well designed oil plant.

Coal deterioration begins when it leaves the mine—oil only when consumed. Weight for weight oil has double the heat value of coal and bulk for bulk and measured by the same values occupies but half the space.

When burned beneath a boiler, fuel oil transmits to the water a greater percentage of its theoretical heat value than can be secured with any other fuel.

Fuel oil in the commercial world must be marketed in direct competition with coal. The latter fuel will always remain the direct proportion therefore to the commercial value of coal. Fuel oil may increase in monetary value from time to time as more modern methods of handling, storing and controlling it are devised. A river cannot rise above its source, neither can the price of fuel oil rise above its equivalent heat producing value in coal, which will ever remain the dictator of fuel values.

We make this statement for the purpose of disabusing the minds of any prospective user of fuel oil that if fuel oil was adopted as fuel the price would to any great extent be advanced in the future and thus debar him in the continuance of its use and in the participation of the benefits to be derived therefrom. The supply and demand may influence the consumption of coal and the market price of coal may fall, but as surely will these same influences affect the price of fuel oil, which would be correspondingly lowered until the equilibrium of the two fuels is again restored. No thinking person would be bold enough to make the broad statement that fuel oil will ever displace coal or even to an appreciable extent affect this industry. Local causes alone would prove the only exception to this statement; for if all the oil produced in the world were used as fuel and not diverted into the multitudinous channels through which it finds an outlet to the consumer, the calorific value of this oil when burned would amount to less than 5 per cent. of the total value in the coal consumed in this same period of time.

A fuel oil plant must be considered simply as an investment that will yield a certain percentage of returns upon same. It cannot be considered in any other light. The paramount question is if the purchaser invests so many dollars in a fuel oil plant, how much will his profits be increased at the end of the year on account of this investment? Not, what is the first cost of the apparatus?

A coal burning boiler which utilizes 80 per cent. of the heat value of the coal is very exceptional, while 75 per cent. represents very good practice, and 65 to 70 per cent. a fair average for good practice. The great majority of coal burning boilers operate at efficiencies less than 65 per cent. Of the heat value of a pound of oil fuel according to a calorimeter test, over 95 per cent. can be accounted for as being absorbed by the boiler, while a boiler and furnace efficiency of 75 per cent. is quite ordinary and 80 per cent. is not uncommon. The number of heat units in good bituminous coal runs from 12,000 to 15,000 B.T.U.'s per pound while the heat value of a pound of average run of coal on the market at the present time, probably does

Fuel Oil as a Heat Producing Agent

Continued

not exceed 11,500 B.T.U.'s. The heat units in a pound of oil varies from 17,000 to 20,000 B.T.U.'S. The fuel oil on the market today runs about 18,500 B.T.U.'s per pound. The following table shows approximately relative heat values of coal and oil:

<i>B.T.U. per pound of coal.</i>	<i>Pounds coal equal to one barrel of oil.</i>	<i>Barrels of oil equal to one (short) ton of coal.</i>
10,000	620	3.23
11,000	564	3.55
12,000	517	3.87
13,000	477	4.19
14,000	443	4.52
15,000	413	4.84

In evaporation results, oil is very much superior. In good practice, about 9 to 9.5 pounds of water are evaporated per pound of coal while the average for coal is about 7.5 to 8.5 pounds. It is very good practice that will give an evaporation of 10 pounds of water per pound of coal. These rates of evaporation are referred to a temperature of feed water of 212° F. With oil burning, the evaporation varies from 12 to 16 pounds of water for every pound of oil burned, depending upon the quality of oil and local conditions. However, good average practice is 14 to 14.5 pounds, while an evaporation of 15 pounds of water per pound of oil is quite easy to obtain with proper installation.

Among the buildings heated by oil in the City of Toronto, approximately one hundred are using Fess Oil Burners. A recent installation has been made in the heating plant of Sir John Eaton's residence. One low pressure boiler of fifty horse power was first equipped with the burners and so satisfactory have been the results that a duplicate order has been given for the equipment of the second boiler. Air which is used as the medium for breaking the oil into fine particles and for completing combustion, is supplied by low pressure centrifugal fans. The mechanism of the burner is so constructed that if the attendant is absent from the boiler room and the supply of air, for any reason, is cut off, the flow of oil through the burner is stopped, thus preventing a flood of oil in the furnace. The ease of operation, the cleanliness of the plant and its adaption for constant and varying loads point to the efficient oil burner as the only method for the modern power plant. The success of this and other Fess Burner installations is an indication not only of the quality of this burner but also of the engineering efficiency of the makers, who personally superintend all installations; the success of an oil burning plant depends as much upon a correct installation as upon the type of burner used.

If It's Machinery Write "Williams"

DO you notice the scope that phrase embraces? It does not confine itself to a certain number or a limited variety of machines. It means—if you want any kind of a machine—Write “Williams”. Such confidence is found only where service of the superior type is rendered. The evidence we have that our service has proved itself the best is the fact that we lead machinery houses in Canada. We interpret service to mean the complete satisfaction of our customers. To help satisfy our customers we invite their confidence, co-operate with them, suggest methods and in every way possible help them to equip themselves in the most economical and efficient manner.

We await your pleasure to give you our co-operation.

THE A. R. WILLIAMS MACHINERY CO.

LIMITED

64-66 FRONT STREET WEST

BRUNNER, MOND CANADA, LIMITED



The completion in the immediate future of Brunner, Mond Canada, Limited's new plant for the manufacture of SODA ASH, at Amherstburg, Ontario, marks a great forward stride in Canada's industrial and economic development.

Brunner, Mond Canada, Limited's plant occupies a tract of one square mile, and here have been erected the large group of buildings and the extensive and complicated apparatus necessary to transform the hitherto unexploited natural resources of Salt and Limestone into the SODA ASH which the Dominion so urgently needs in the manufacture of glass, soaps, drugs, and in fact so many lines of commercial, industrial and domestic utility as to justify the statement that SODA ASH, also known as Alkali, in one form or another ranks second only to Pig Iron in the number and extent of its uses and in its importance in our every day life.

Before the completion of this plant Canada was dependent upon the manufacturers of other countries for her supply of SODA ASH, but this new plant built by Canadians and of Canadian materials, will manufacture by Canadians and in Canada the SODA ASH which the Dominion requires, insuring to a great degree her industrial and economic independence and importance.



BUY A Canadian Government Annuity

It Will Make You Independent in Your Old Age

Any person looking for a safe and profitable plan of investment, with Government security and Government protection, that will insure ample provision for old age at lowest cost, should at once obtain information about the CANADIAN GOVERNMENT ANNUITIES SYSTEM.

One person has invested over \$20,000, another over \$19,000, twenty over \$232,000, an average of over \$11,600 each, and 100 over \$690,000, or an average of over \$6,900 each.

ANY PERSON of the age of 5 years or over, domiciled in Canada, may purchase by a weekly, monthly, quarterly, half-yearly or yearly payment, spread over a number of years, a CANADIAN GOVERNMENT ANNUITY OF FROM \$50 TO \$1,000, according to his means, to begin at 55 or any later age.

IMMEDIATE Annuities are purchasable by a single payment in cash in advance by any person who has attained the age of 55, or any older age, a man of 60 paying less for the same Annuity than a man of 55, a man of 70 less than a man of 60, the rate decreasing from year to year until the age of 85, when it becomes stationary. They may be purchased on the ordinary life plan or on the Guaranteed Plan, and the first quarterly instalment of Annuity becomes payable 3 months from the date of purchase.

Any two persons may purchase a LAST SURVIVOR ANNUITY of from \$50 to \$1,000 on their joint lives on either the Deferred or Immediate Plan.

NO MEDICAL EXAMINATION REQUIRED.

All Annuities are payable for life, and may be guaranteed for a number of years certain by the payment of an increased premium.

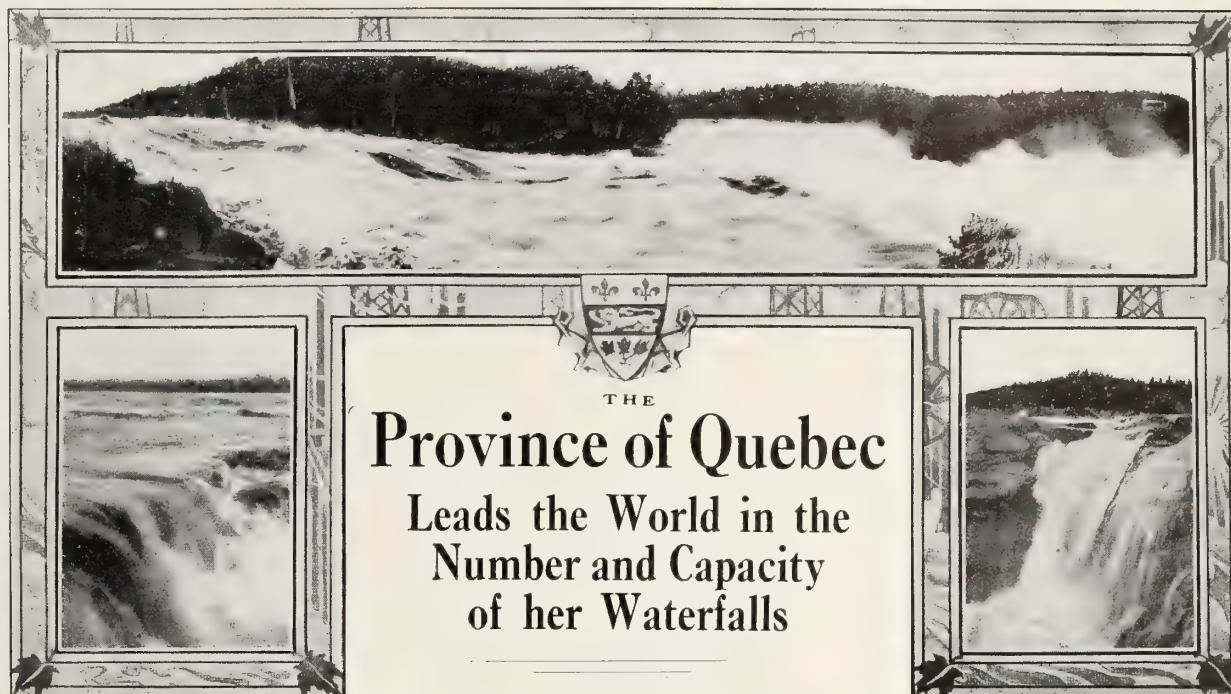
Enquire at the Post Office for descriptive booklet; or write to THE POSTMASTER GENERAL, Annuities Branch (your letter will go free of postage), mentioning your age, or ages, last birthday, and he will send you by return mail full particulars as to the cost, and any other information desired.

EXAMPLES

A man aged 21 by paying \$4.90 a month from 21 to 60 may purchase an Annuity of \$500 to begin at 60. If he should die before 60 the Government will return to his wife, or his heirs, all payments made with 3% compound interest to the date of his death. If he should die, say, at 59, the Government will pay to his wife or his heirs \$4,335.30 in cash. The Annuity would be paid to him from 60 in quarterly instalments of \$125 each for life, or for 10 years in any event, a return of \$5,000 being positively guaranteed, though he might live but one day after the Annuity fell due.

A man aged 63 may purchase a life Annuity of \$1,000 at a cost of \$9,480, the first quarterly instalment of \$250 to fall due three months from the date of purchase, which would give him a return as long as he may live of over 10% on his money.

A man aged 63 may purchase a Last Survivor Annuity of \$600 on the lives of himself and wife aged 60, at a cost of \$7,938. This would give them a return of over 7½% on their investment as long as either lived.



How to Acquire Authorization for the Development of Water-Powers in the Province of Quebec

To obtain authorization for the utilization of a Water-Power in the Province of Quebec, application should be made to the Honourable Minister of Lands and Forests.

Water-Falls capable of developing less than 200 H.P. may, under certain circumstances, be bought outright. But those of over 200 H.P. are granted under emphyteutic leases, the conditions of which are upon the following lines:

1. Duration of the lease, from 25 to 99 years according to the importance of the water-power and to the amount of capital required for its development.
2. Payment of a yearly rental—which does not vary during the term of the lease—for the land granted, counting from the date when the contract is granted.
3. An additional yearly charge of from 10 to 35 cents per H.P. developed, according to the geographical situation of the site of the water-power; such charge being payable from the time the power is produced.
4. The above charge (Art. 3) is subject to revision every 21 years counting from the signing of the contract.
5. A delay of 2 years is granted for beginning works and 2 further years for producing power.
6. The lessee is under obligation to make a deposit in money, or in securities, as a guarantee of good faith in the carrying out of the contract. Such deposit may be forfeited if the conditions are not fulfilled; but it may be repaid after a certain time, in the contrary case.
7. Lastly, the grantee must submit plans of his works, mills, etc., to the Department previous to their installation, and when such installation is completed he must keep the Department informed as to the quantity of power produced.

SECURITY AND SERVICE

PRUDENTIAL WATCHWORDS

Insurance in Force, over - - \$3,650,000,000

Paid Policyholders, plus
Amount held for their Security } \$ 953,000,000

Number of Policies in Force, over 16,800,000



Home Office, Newark, N. J., U. S. A., with 4,500 Employees.
Branch Offices in all leading Canadian Cities.



THE PRUDENTIAL INSURANCE COMPANY OF AMERICA

FORREST F. DRYDEN, - President

Incorporated Under the Laws of the State of New Jersey

IS YOUR INCOME INSURED?

If you died to-day would the interest on your estate permit your family to enjoy the same comforts they now have? If you find there is a shortage, ***let us carry that shortage!***

It will save you a lot of worry now, and your family worry later, if you will arrange with us to pay at your death a specified income for a definite number of years, any number you choose up to thirty.

Illustration—If you are age 35 and pay us annually \$519.61 for twenty years, we will pay your wife at your death \$100.00 ***per month*** for twenty years. At age 40 the rate is \$584.22. No further premium payments required after you die.

If you choose, the income can be made payable for 20 years certain and as much longer as your wife survives.

For particulars as to plans and rates at your age, telephone our office in your city or address

Metropolitan Life Insurance Co.

1 MADISON AVE., NEW YORK CITY

A purely Mutual Company which has subscribed over one hundred million dollars to the War Loans of Canada and the U.S.

SIX MILES OF LEATHER BELTING

Are Manufactured Every Working-Day in Our Factory.

More than a thousand hides go through our Tannery each day. This tremendous output is conclusive proof of the superiority of leather products bearing this trademark—"G & K".

For Two-Thirds of a Century

Our watchword has been "better belting" not "lower prices".

The tremendous growth of our business is evidence that quality products are appreciated by users of leather belting, lace leather, strapping, packings, shoe supplies, and miscellaneous leather articles.

On the leather products, the trademark G & K is equivalent to the Sterling mark on silver.

The Graton & Knight Mfg. Co.

WORCESTER, MASS., U.S.A.

Representatives in All Principal Cities of This Country and Canada.



WASHBURN - CROSBY COMPANY'S FLOUR MILLS



Located at BUFFALO, NEW YORK

Daily Capacity 20,000 Barrels

THE GOLDIE & McCULLOCH CO., Limited

Head Office and Works:—GALT, ONT., CANADA

Toronto Office:—1101-2 Traders Bank Building

Western Branch:—248 McDermott Ave., Winnipeg, Man.

Builders of

*Horizontal and Vertical Stationary Steam Engines, Marine Engines and
Steam Turbines.*

*Return Tubular and Water-Tube Boilers, Heaters, Tanks, Boiler Feed Pumps, Vertical Marine
Pumps, REES ROTURBO Patent Pressure Chamber Centrifugal Pumps and Air Pumps, Jet and
Surface Condensers, REES ROTURBO and Contra-Flo Condensers.*

SAFES, VAULTS & VAULT DOORS

Ask for Catalogues and Prices if Interested.

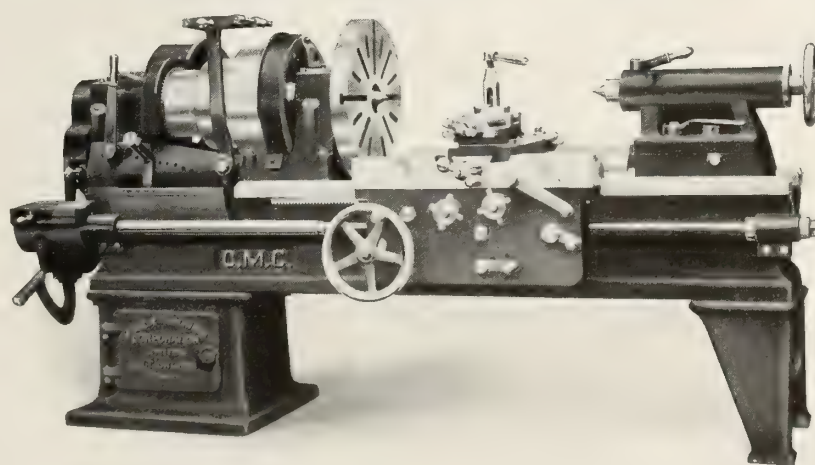
TRADE MARK



REGISTERED

MACHINE TOOLS and WOODWORKING MACHINERY

BUILDERS
of
MACHINERY
of the
HIGHEST
STANDARD
of
WORKMANSHIP
and
DESIGN



SOLD DIRECT
and
by leading
MACHINERY
DEALERS

PROMPT
ATTENTION
GIVEN
ENQUIRIES

20" Engine Lathe with Quick Change Gears

CANADA MACHINERY CORPORATION, LIMITED, GALT, ONTARIO

Toronto Office and Warerooms : BROCK AVE. SUBWAY

W. R. JOHNSTON & CO.
LIMITED

WHOLESALE
MANUFACTURING
CLOTHIERS

YORK and FRONT STREETS TORONTO

ESTABLISHED 1868

**An Army of Men, Young Men and
Boys, wear—**

Sanford Made Clothes

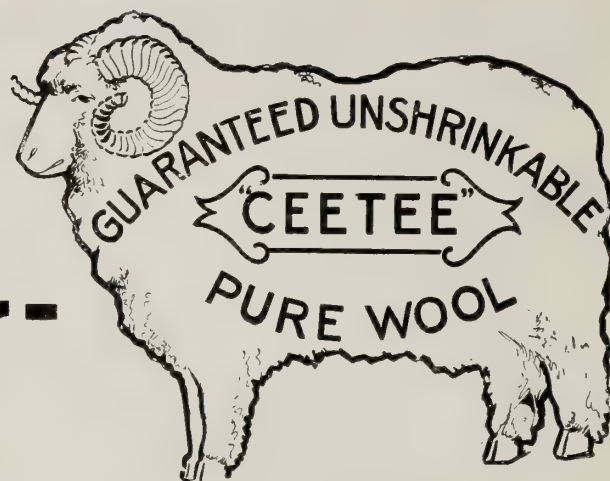
That army is steadily increasing and there are no deserters.

A "Sanford Made Suit" means to you the worth of over 50 years in knowing how.

**W. E. Sanford Manufacturing
Company, Limited**

HAMILTON

WINNIPEG



Finer Knitted and Lighter Underclothing the Warmest

The following item will show that the British Government are now recognizing a fact that we have always been proclaiming.

The Principal of Hawick Technical Institute, Scotland, recently stated as follows :—

"Owing to the lack of sufficient numbers of coarse gauge frames, on which to make military garments, the authorities have been compelled to consider the acceptance of garments of a FINER class.

The results in point of comfort for the men have been so satisfactory that it is very unlikely that there will be a general acceptance of coarse fabrics, as in the past. . . . It has been discovered that in using the coarse types of woollen yarns, made from wool of thick fibre and of small heat-retaining property—the men are carrying weight WITHOUT CORRESPONDING INCREASED WARMTH.

Indeed, it is found that for warmth and comfort, BETTER RESULTS are obtained from finer fibred materials, while the freedom of movements of the limbs is very much increased.

The recent increase in the demand for FINER YARNS FOR MILITARY GOODS will certainly be permanent.

The extra warmth of "CEETEE" Underclothing, which is now a recognized fact, is due to the above facts. Not only is it made from the finest and purest Australian Merino Wool, but it is knitted closer, thus producing lighter weight, with greater warmth and freedom.

All joins have selvedge edges and are KNITTED, NOT SEWN together. Thus there are no seams to ravel or irritate.

A "CEETEE" garment is so soft a baby can wear it.

Furthermore, a "CEETEE" garment WILL NOT SHRINK, and this is guaranteed.

"CEETEE"

THE PURE WOOL
UNDERCLOTHING
THAT WILL NOT SHRINK

MADE ONLY BY

The C. Turnbull Company of Galt, Limited
GALT - ONT.



Compliments of
Joseph Simpson Sons,
Limited
Toronto



B&B

DOUBLE-SURE PRODUCTS

Surgical Dressings
Absorbent Cotton
Bandages, Gauze
Adhesive Plaster
Fumigators

BAUER & BLACK
LIMITED

96 Spadina Ave. - TORONTO

THE QUALITY AND STYLE OF

McPHERSON SHOES

ATTRACT CAREFUL DRESSERS ALWAYS. YOU
WOULD NEVER BELIEVE THAT SUCH SMART SHOES
COULD BE SO COMFORTABLE.

THEY MAY BE SEEN AT ALL THE BETTER DEALERS.

THE

JOHN MCPHERSON & CO.

HAMILTON, ONTARIO

LIMITED

Honor Roll

Members of the Staff of the
Barber-Ellis, Limited
who have served for King
and Country



Major K. A. Murray
Sergt.-Maj. A. C. Pollett
Staff-Sergt. N. Duncan
Sergt. S. V. Nesbitt
Pte. Wm. Howard
“ A. Fogler
“ C. W. Hull
“ W. Uteck
“ M. J. Walsh
“ J. Lennon
“ Chas. Tress
“ Geo. Fenning
“ V. C. Anderson

Capt. A. G. Graham
Corp. A. A. Sutton
L.-Corp. S. A. Reid
Pte. Geo. Caswell
* “ R. A. Atkins
“ S. Mears
“ M. Halstead
“ Chas. Murray
“ F. Riley
“ A. G. Dove
“ J. Caswell
“ W. Garnet
“ N. Lockyer

* Died of Wounds

The
**Riordon Pulp & Paper
Company, Limited**
MONTREAL

————— MANUFACTURERS OF —————
*SULPHITE PULP, LUMBER, CLAPBOARDS
SHINGLES and TIES*

————— YEARLY OUTPUT —————
HAWKESBURY MILL—Easy Bleaching Sulphite Pulp. 60,000 tons.
MERRITTON MILL—Bleached Sulphite Pulp. 10,000 tons.
CALUMET MILL—Lumber 20,000,000 ft. B.M., also Clapboards,
Shingles and Ties.

————— OFFICERS —————
CHARLES RIORDON CARL RIORDON FRED. B. WHITTET
President *Vice-President and Man. Director* *Secretary and Treasurer*

Head Office :
355 BEAVER HALL SQUARE
MONTREAL

————— SALES MANAGERS —————
T. J. STEVENSON GEO. E. CHALLES

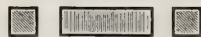
STEEL CASTINGS AND FORGINGS

SPECIALIZING IN

Machinery, Locomotive and Car
Castings

STEEL BARS

'PENN' AUTOMATIC CAR COUPLER
ANNUAL CAPACITY, 50,000 TONS



DOMINION STEEL
FOUNDRY COMPANY
LIMITED

Hamilton - - - Ontario

W. H. COX COAL CO.

LIMITED

86 King Street East
TORONTO

Phone Main 6074

Wholesale Dealers in Anthracite
and Bituminous Coal

The Celebrated "Vinton" Smoke-
less Coal a Specialty

ESTABLISHED 1851

JOHN B. SMITH & SONS

LIMITED

TORONTO

Manufacturers of Lumber, Lath, Shingles, Doors, Sash, Etc.

Interior finish in Pine and all kinds of Hardwoods

Long and Heavy Timbers a specialty

MEN WANTED AT CALLANDER FOR SAW LOGGING

SOLE LEATHER



Head Office :

218 Notre Dame St. W., Montreal, Can.

Branch Offices :

665 King Street West, Toronto, Canada

566-576 St. Valier Street, Quebec, Canada

Boston Office and Warehouse :

Anglo-Canadian Leather Co. of Boston, 192 South Street

Tanneries :

HUNTSVILLE and BRACEBRIDGE

ONTARIO

=

=

CANADA

The Largest Sole Leather Tanners in the British Empire

HIGH GRADE RUBBER GOODS

(Made in Canada)

BELTING

for all purposes

PACKINGS

VALVES

TUBING

MOTOR TIRES

TILING

MATS & MATTING

MOULDED GOODS

Etc.



RUBBER HOSE

for

WATER

SUCTION

STEAM

AIR DRILLS

FIRE PROTECTION

ACIDS

PNEUMATIC TOOLS

Etc.

Sole manufacturers of "Maltese Cross" Brand Rubbers
The best-fitting, best-wearing and most stylish rubber
footwear on the market.

GUTTA PERCHA & RUBBER, LIMITED

Head Offices: 47 YONGE STREET, TORONTO

Branches at:—

HALIFAX, MONTREAL, OTTAWA, FORT WILLIAM, WINNIPEG, REGINA, SASKATOON,
EDMONTON, CALGARY, LETHBRIDGE, VANCOUVER, VICTORIA,
MELBOURNE, SYDNEY and PERTH, AUSTRALIA.

Dunlop



Tires

STABILITY

Proof that Dunlop Auto Tires have a remarkably large following is indicated by the fact that our automobile tire business is now greater than the total business of the company two years ago. This surely indicates those underlying factors of stability and matchless quality, which win and hold customers.

Our full-fledged branches located at Victoria, Vancouver, Edmonton, Calgary, Saskatoon, Regina, Winnipeg, London, Hamilton, Toronto, Ottawa, Montreal, St. John and Halifax, are doing a bigger business than ever before. This surely justifies our claim that all Canada knows and believes in Dunlop Tires.

Dunlop Tire & Rubber Goods Co. Limited

Head Office and Factories: Toronto

-

Branches in the leading cities



DEFENDERS OF CANADA

Insure the future heritage of 100,000,000 peaceful, prosperous people—a country of immense tracts of fertile, agricultural land; of inexhaustible forests and mines; of rivers, lakes and coastal waters teeming with fish; of splendid industrial and commercial opportunities; of the highest social, religious and political freedom—a country whose past and present growth and greatness assure a magnificent future.

The Dominion Government is providing liberal assistance through the Soldier Settlement Act for men who have served in the Forces of the Empire during the present war and for soldiers' widows who desire to engage in agriculture.

MAKE CANADA'S FUTURE YOURS

Write for illustrated literature and full information to:—

W. D. SCOTT, Superintendent of Immigration, Ottawa, Canada.



WILLYS-OVERLAND, LIMITED

WEST TORONTO, ONT.

Branches:—MONTREAL, QUE. WINNIPEG, MAN. REGINA, SASK.

Why a C.C.M. Bicycle?



Because it looks well and runs easily, not only when new, but for many years.

You can avoid all risk by selecting any one of the following name plates:

MASSEY

CLEVELAND

Brantford RED BIRD

COLUMBIA

PERFECT

MADE AND GUARANTEED BY

CANADA CYCLE & MOTOR CO., LIMITED

Montreal

Toronto

WESTON

Winnipeg

Vancouver



RIDE A BICYCLE

and Save Money

SHELL MAKERS FAVOR

Holden-Morgan Thread **Milling Machines**

Because of their accuracy, quick handling, and time and labor saving features. They are so simple a boy can operate them and can usually look after two machines at the same time.

One revolution of the spindle completes the operation

Holden-Morgan Thread Millers

Mill the internal threads on the base or nose of the shell body. The thread is milled absolutely the same size in every instance and is always perfectly true with the axis of the shell.

Holden-Morgan Thread Milling Machines

have been sold in Canada, United States, Great Britain, France, Australia and Russia.

OVER 1000 MACHINES IN USE

*We make machines suitable for all kinds of thread milling;
on shells, time fuses, primers, plugs, sockets, etc.*

HOLDEN = MORGAN COMPANY
LIMITED

**579-585 Richmond St. West
TORONTO, CANADA**

**Chicago and Granger Aves.
BUFFALO, N.Y.**

CUT
GEARS

A FARM TRACTOR

CUT
GEARS

*Distinguished for the same good qualities that have
made Hamilton machine cut gears the
standard cut gears of Canada*

RATING

12—22 H. P.

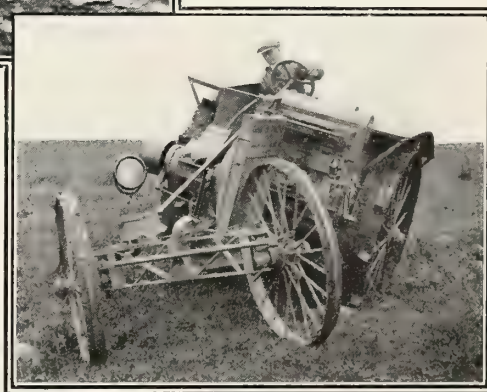
*A three plow
machine*



*“Dependable”
Always*



¶ Having in view tractor working conditions, this machine was designed on conservative mechanical engineering principles, where there is no shading between right and wrong methods.



¶ The general features of convenience, safety and accessibility are shown in the self-steering, short-turning radius, unusual flexibility, high ground clearance, low centre of gravity, broad tread, large diameter front wheels, enclosed transmission gears, two independent brakes, all steel frame, comfortable roomy cab.

DETAILED INFORMATION ON REQUEST.

HAMILTON GEAR AND MACHINE CO.

Van Horne Street

TORONTO

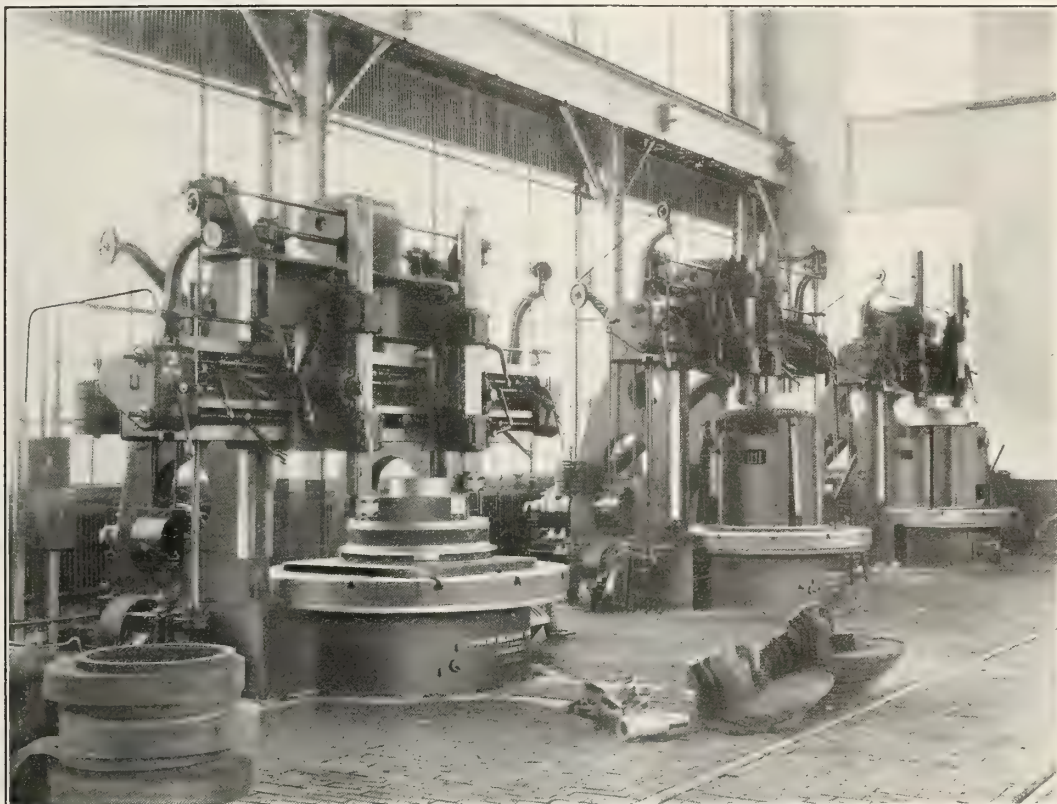


THE
STEEL COMPANY
OF
CANADA
LIMITED
HAMILTON MONTREAL

STEEL and IRON
PRODUCTS
of every
DESCRIPTION



BERTRAM MACHINE TOOLS



EQUIPMENT FOR

SHIPBUILDING YARDS
RAILWAY AND CAR SHOPS

STRUCTURAL STEEL SHOPS
GENERAL MACHINE SHOPS

*Photographs, Specifications, and Prices
will be forwarded on request*

The John Bertram & Sons Co., Limited
DUNDAS, ONTARIO

MONTREAL

TORONTO

WINNIPEG

VANCOUVER

The Welland Vale Manufacturing Company, Limited

ESTABLISHED 1869

ST. CATHARINES

-

ONTARIO, CAN.

MAKERS OF

**Axes, Picks, Mattocks,
Grub Hoes and Crow Bars,
Hand Agricultural Forks,
Hoes, Rakes, Scythes, Etc.**

EACH TOOL IS SOLD WITH A FULL GUARANTEE.

*Our fifty years experience has developed Tools that
cannot be excelled.*



Black Prince Axe



Clay Pick



3-prg. Fork

Catalogues illustrating our full line of Tools and price lists
covering, supplied on application.

All inquiries or orders will be given our prompt and careful attention.

ARTHUR HIND, President.
P. W. COPELAND, Vice Pres't & Treas.

Cable Address
"HIND CLARK MILLS, N.Y."

W. R. KENNISH, Sec'y & Ass't Treas.
N. K. RENDELL, Sales Manager.

Manufacturers of
BEARSKINS
FANCY SILK PLUSHES
for
INFANT'S and CHILDREN'S
COATS

SEAL PLUSHES
URALS, CARACULS,
FUR EFFECTS
for
CLOAKS
OVERCOAT LININGS
and CAPS

Manufacturers of
SILK MOHAIR and LINEN
PLUSHES
MERCERIZED and COTTON
VELOURS

for
UPHOLSTERY TRADE

COTTON and SILK
PLUSHES
for
CASKET TRADE
MOHAIR RUGS

The Hind & Harrison Plush Co.

CLARK MILLS, N.Y.

CHICAGO SALEROOMS:
Dry Goods Reporter Building
215 South Market St.

NEW YORK SALESROOM:
225 Fourth Ave.

"MEATS THAT SATISFY"

The "ROSE" BRAND

Hams and Breakfast Bacon

GOVERNMENT INSPECTED

Choicest Meats in the Market. Stocked by leading Grocers, Butchers and Purveyors.

Have the call from Coast to Coast.

PLANTS AT:

TORONTO, Ont. MONTREAL, P.Q.
HULL, P.Q. PETERBOROUGH, Ont.
BRANTFORD, Ont.

BRANCH HOUSES:

WINNIPEG, Man. SUDBURY, Ont.
FORT WILLIAM, Ont. SYDNEY, N.S.

MATTHEWS-BLACKWELL, LIMITED

PACKERS AND PROVISIONERS



'MONARCH' FLOUR

MAKES

DELICIOUS PASTRY

You will always find the very best quality in our

Monarch Lines

MONARCH TEA AND COFFEE

MONARCH VEGETABLES

MONARCH FRUITS

MONARCH SALMON

H. P. ECKARDT & CO.

WHOLESALE GROCERS

TORONTO

The University of Milling

Just as the University is the final hall of learning, so the Robin Hood Mills are the university of the milling industry. They are all that modern equipment, study and science can devise; presided over by those of ripe experience. In these mills at Moose Jaw and Calgary--in the heart of Canada's great grain belt--are milled the famous

Robin Hood Flour and Robin Hood Porridge Oats

The policy of the Robin Hood Mills has been to produce the Finest Flour, Rolled Oats and other cereals that can be milled from the choicest grains grown in the West. This policy has made Robin Hood Products as widely known throughout the Dominion as Robin Hood and his merry men were known throughout Sherwood Forest and the country around old Nottingham.

If you are interested in pure foods, you will appreciate the faultless quality of Robin Hood Flour and Porridge Oats.

Sold by the leading grocers from coast to coast.

Robin Hood Mills, Limited

Moose Jaw - Calgary - Montreal



These Pure Food Products

---are to be found in the homes and on the tables of thousands of families throughout the Dominion to-day.

They represent a standard of excellence which has never been surpassed and which Canadian Housewives everywhere have learned to recognize as absolutely reliable.

You, too, will enjoy the "extra" goodness of these pure food products. Introduce them to your own table.

ASK YOUR GROCER FOR

DAVIES WILTSHIRE BACON

DAVIES PURE LARD	-	DAVIES PORK SAUSAGE
DAVIES COOKED MEATS	-	"PEERLESS" SHORTENING
"GLEN GROVE" BUTTER		EGGS AND CHEESE
		"PEERLESS" PICKLES

THE **DAVIES** COMPANY
WILLIAM LIMITED

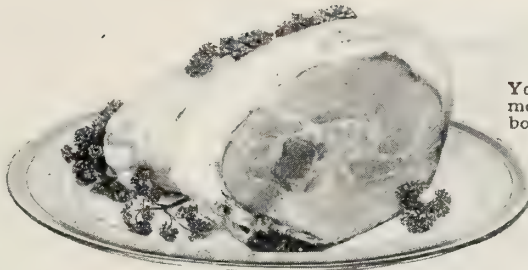
TORONTO

MONTREAL

WINNIPEG

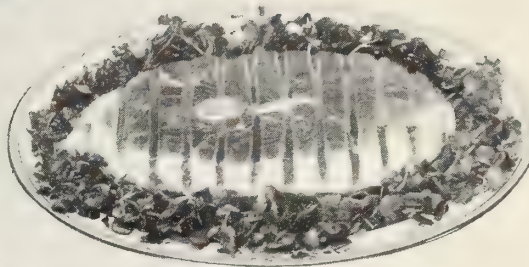
HAMILTON

Canada Food Board Packers License No. 13-50

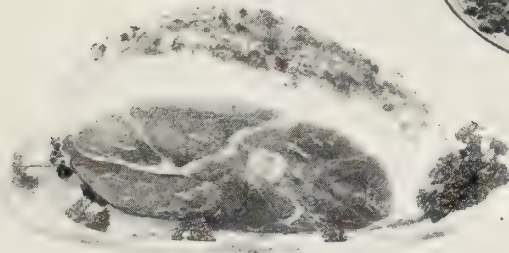


Your family will ask for more and more when you serve the shank, boiled. It is so tender—so delicious.

They will enjoy it when you serve the savory center slices broiled or fried without parboiling.



All the rich, yet mild flavor is brought out in baking the butt.



Buy it whole – so delicious your family will want it often

So popular are they for their flavor, that thousands of women buy "Swift's Premium" Hams whole.

They find that with a whole Premium ham they can give their families a greater variety of dishes than with any other meat—each dish so good that the family asks for it over and over again.

You would understand why the flavor of "Swift's Premium" Ham is so delicious if you could see the care and skill which is lavished on every detail of preparation. Experts select the very choicest hams. They are given a special cure which

takes longer, is more expensive and troublesomeness than that ordinarily used, but which produces a far more delicious flavor. In the spicy, fragrant smoke of hickory wood, all the mellowness, all the savor is brought out. Even with all this care, only one ham out of five is considered so perfect as to be branded "Swift's Premium."

Get one of these hams today and see how much your family enjoys its flavor—how quickly it disappears once they taste it.

Swift Canadian Co., Limited
Toronto Winnipeg Edmonton

"Swift's Premium" Ham

Do not parboil before broiling or frying

Phone
615
Private Exchange



Cable Address:
"Elecsteel" Welland

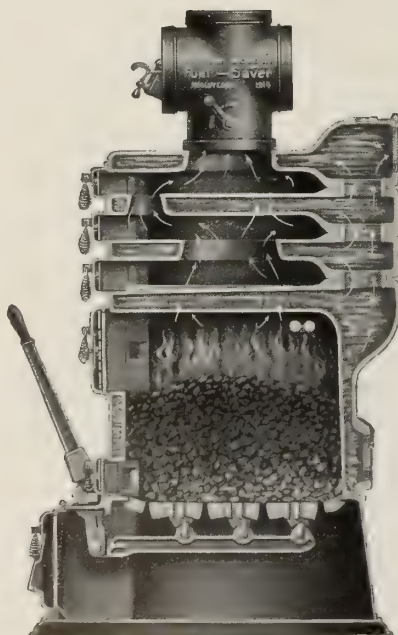
Stands for Quality

ELECTRIC STEEL CASTINGS

High-Grade Steel Castings of Every Description,
Alloy Steel Castings, Mining Bar and Rock Drill
Steel Forging Ingots

THE
ELECTRIC STEEL & METALS CO.
WELLAND, ONTARIO LIMITED

The Safford Mogul Hot Water Boiler



Cross section view of MOGUL Hot Water Boiler

Safford MOGUL Hot Water Boilers and Safford Radiators have been designed with utmost care and their ratings have been so conservatively fixed as to assure the user the fullest measure of comfort and satisfaction at the very minimum of labor and expense.

The Safford MOGUL Hot Water Boiler is to-day the recognized standard home-heating hot water boiler.

MANUFACTURED BY

THE
DOMINION RADIATOR COMPANY
LIMITED

BRANCHES AT

TORONTO MONTREAL ST. JOHN WINNIPEG
HAMILTON OTTAWA CALGARY VANCOUVER

BANWELL HOXIE WIRE FENCE CO.

LIMITED

MANUFACTURERS OF
Peerless Woven Wire Fencing
Ornamental Fencing
Gates, etc.

FACTORIES AND OFFICES AT:—

**HAMILTON, WINNIPEG,
ONTARIO MANITOBA**

THE MISSOULA MERCANTILE COMPANY

MISSOULA, Mont., U.S.A.

Compliments of
VULCAN CRUCIBLE STEEL COMPANY

Manufacturers of
High Speed and Carbon Tool Steels

ALQUIPPA, PENNSYLVANIA, U.S.A.

HOYT METAL COMPANY

Operates Four Plants—
ONE IN LONDON, ENGLAND
ONE IN TORONTO, CANADA
TWO IN THE UNITED STATES

From these plants our mixed metal sales are over
five million dollars worth annually.

**Manufacturers of Type Metals, Babbitts,
Solders, Lead Pipe, Traps, Sheet Lead,
Wire Solder, Came Leads.**

Toronto Factory : EASTERN AVE. and LEWIS ST.

The Randolph Macdonald Co.

Limited

Contractors for
CANAL AND
HARBOUR
WORKS

Head Office

Toronto

BURLINGTON STEEL CO., Limited

HAMILTON, CANADA

STEEL BARS for Reinforcing Concrete

Rounds, Squares, Flats, Twisted Squares, Angles, T-Bars,
Ovals, Half Ovals, Half Rounds, Bands, Special Sections.

3, 4", 7/8" and 1" Channels for use with Metal Lathing

Bars bent to shape for

STIRRUPS, BEAMS, ETC.

PROMPT SHIPMENT FROM STOCK

FRANKEL BROTHERS

TORONTO MONTREAL

Purchasers of
**AMMUNITION
SCRAP**

ARCHITECTS
are respectfully requested to specify
SOIL PIPE and FITTINGS
and
RANGE BOILERS
Manufactured by
TORONTO HARDWARE MANUFACTURING CO. Limited

W. J. McGUIRE
LIMITED
Contractors
Plumbing : Heating : Electric Wiring
AUTOMATIC FIRE SPRINKLERS
Prompt Attention Given Repair Work
TORONTO, Ont. MONTREAL, Que.

TRY THE SIMCOE INDIVIDUAL BAKED BEANS

With Chili Sauce

Place the tin in hot water—
Presto! in five minutes you
have steaming hot, the most
delicious edible known.



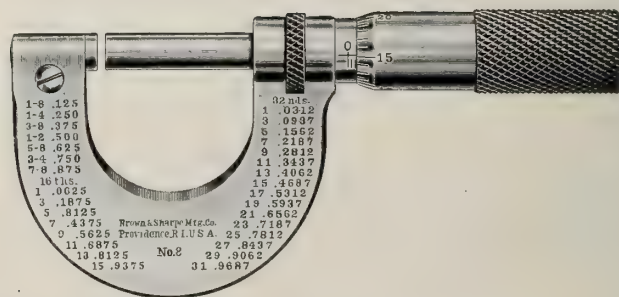
**UNION CARBIDE COMPANY
OF CANADA, LIMITED**

Head Office :
DOMINION BANK BLD'G
TORONTO, Ont.

Works - WELLAND, Ont.



Brown and Sharpe
Cutters
and
Precision Tools



Hardware Company of Toronto, Ltd.
46 ADELAIDE STREET W.

3 Doors
East of Bay St.

Phone Main 94

3 Doors
East of Bay St.

SANDERSON PEARCY & CO., Limited

Importers and Wholesale Dealers in

Window Glass, Oils,

Varnishes, Colors,

Brushes and Cutlery

MANUFACTURERS OF

White Lead and Prepared Paints

272 VAN HORNE STREET
TORONTO, ONT.

S. R. PARSONS,
Pres't.

A. L. ELLSWORTH,
Secy.-Treas.

THE BRITISH AMERICAN OIL CO., Limited

PRODUCERS, REFINERS AND
DISTRIBUTORS OF PETROLEUM
AND PRODUCTS

Refinery: Foot of Cherry St., Toronto

Head Office :

ROYAL BANK BDG., TORONTO

Branches : MONTREAL, OTTAWA, LONDON,
WINDSOR, etc.

We Make THAT GOOD OIL !



White Rose Motor Gasoline IS THE BEST

It takes All the Hills Out of your Road.

A Pure, Dry Gasoline.

No Dirt—No Water—No Grease—No Waste.

Every drop develops Power, Insuring Increased Power.

Less Heat—Less Vibration—Steady Pull.

Less Carbon—Less Gasoline.

En-ar-co National Motor Oil

Is the Best Insurance Against Carbon Trouble.
Consequently you have No Lost Power,
and Obtain Lower Cost of Operation
and Longer Life for Your Car.

Write us for full information

HEAD OFFICE - TORONTO, ONT.

Branches throughout Canada

"Made in Canada"—Not Enough—"National Products"—That's the Stuff.



Aikenhead's

PHONE MAIN 7066

POCKET FLASHLIGHTS

DON'T GROPE IN THE DARK
GET AN EVEREADY FLASHLIGHT



A
Wide Variety
of
Handsome
Designs

Tubular Style.
Made in twenty-
four different
kinds from five
to thirteen inches
in length.



Cigarette Case Style
made in three sizes

Suitable
for
all
Purposes



Portable Search-
lights, strong,
powerful and
lasting, gives a
light of great pen-
etrating power.

RAZORS



AUTO-STROP SAFETY RAZOR

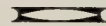
500 Shaves guaranteed
from 12 Blades

ALSO

GILLETTE EVEREADY

PEERLESS, GEM and STAR

SAFETY RAZORS



RAZOR STROPS

SHAVING BRUSHES

COLGATE'S SHAVING SOAP

AIKENHEAD HARDWARE LIMITED, 17-21 Temperance St., TORONTO

The Garvin Machine Company

THE business now conducted by this Company at Spring and Varick Streets, N.Y., was established in 1865, and was incorporated in 1889. Its beginning was modest; its growth and success most flattering. To-day it occupies some 100,000 square feet of floor space in a modern fire-proof building with all the accompanying modern facilities for expediting the handling of its products, as well as up-to-date conveniences for its operatives, thus conserving our customers' interests as a safety factor and avoiding interruption in the progress of work. The plant is electrically driven, and electric lights are used throughout the entire building, which is entirely devoted to the manufacture and sale of Machinery. The Company not only manufactures, but it deals in and handles Machine Tools of all kinds, and most of the Machines illustrated in its Catalogue and recommended for use, can be seen in operation in its factory which is conveniently located in the largest city in America, and the most convenient one in the world from a shipper's standpoint. In its well-lighted Show Room is always carried and exhibited a full stock of standard Machine Tools, thus insuring a prompt filling of orders. The long career of the business established in itself a guarantee of its record and integrity. Being identified in the construction of Machine Tools with the early beginning of a number of the largest Machine-Tool users (capitalized to-day in the millions), and holding and finding them among its best customers to-day, justifies the conclusion that we are warranted in soliciting your consideration and patronage.

In seeking for means to reduce costs and increase production our No. 1 Duplex Slotting Machine offers large and satisfactory results. The capacity of the machine is extensive, milling slots in work up to 4" diameter, in steel or other material. Drift slots in spindles, tool post slot elongated holes, keyways, slots in castings, tools, etc., mortice cuts, open fork ends, cuts in both ends of a piece to be in line, etc., etc., can all be machined with speed and accuracy

without skilled attention; and working from both sides at once, the work is done in one half the usual time. The work table is moved back and forth at uniform speed by cam and adjustable lever.

Cone pulley and change gears provide changes of feed to suit different conditions, short slots being reciprocated quickly and longer slots more slowly.

The cam has a large-sized groove and hardened roller, and is driven by worm gear, and both cam and driving gears are well protected. The spindle heads are designed for high speed. The spindles are tapered at both ends and run in solid bronze boxes, provided with adjustment for wear and taking thrust on hardened step.

Taper gibs are provided for the headstocks and workslide. The heads are fed into cut automatically and simultaneously by right and left-hand quick pitch screw, controlled by ratchet wheel.

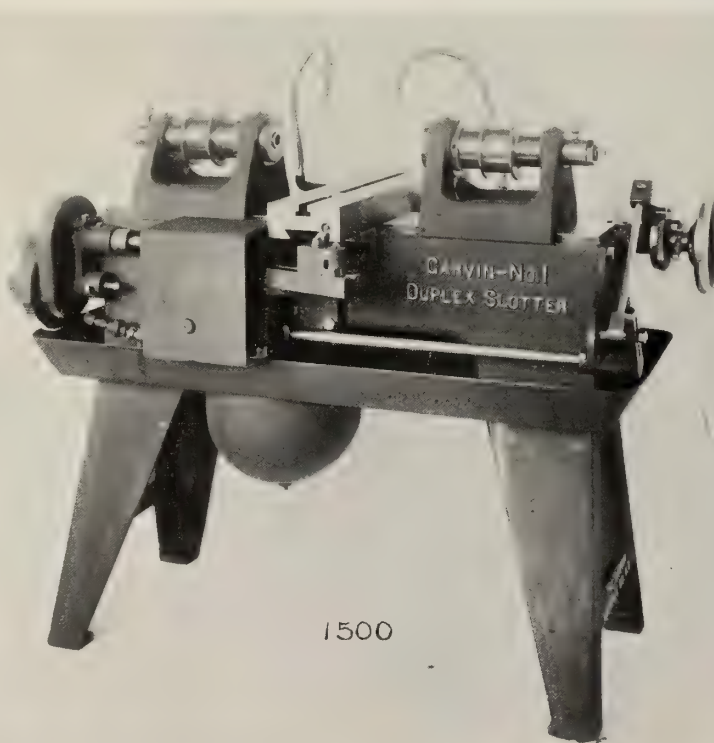
The feed by pawl and ratchet is adjustable, and can be set to automatically lift out and stop feeding when the required depth of cut is reached. This assures absolute uniformity of product without dependence on the operator. Feeding takes place at each end of the stroke.

Each head is independently adjustable along the bed to suit different lengths and conditions of cutters, position of the work on the table, etc. The headstocks are moved in and out simultaneously by hand wheel, and to any distance without interfering with the setting of the machine.

Work can be set at any angle on the table to produce a taper end of slot. Two prong fish tail cutters are used. Adjustable fixtures to hold round work can be provided when desired at extra price.

Changes of speed for different sizes of cutters are provided by friction cone pulley on the countershaft. The

spindle pulleys are driven by drums on the countershaft. All working parts are outside of the bed and readily accessible. All gearing is protected. Steel oil pan with tank and strainer, pump and piping are provided. Weight, 1,600 lbs.



1500

THE

JOHN INGLIS COMPANY,

LIMITED

ENGINEERS & BOILERMAKERS

"MADE IN CANADA PRODUCTS"

Boilers of all kinds for any
service


Engines, Plate Work, Special
Machinery, Pumps, Etc.

WRITE US FOR PRICES AND PARTICULARS

For 52 years our products have been the Canadian Standard

14 STRACHAN AVENUE - - TORONTO, CANADA

OTTAWA—Room 7 Bank St. Chambers



THE resources of our country have been willingly pledged and freely given to the great cause in which our Canadian soldiers and Canadian people played such a glorious part. Canada contributed her full share to the great victory of the Allies.

The fields of Canada produce the highest grade of Wheat in the world, and our Canadian Millers are equal to the task of making it into Flour equal to the best.

In this splendid work the MAPLE LEAF MILLING COMPANY, whose daily capacity is 15,000 barrels occupies a foremost place. The quality of our Canadian Flour is famed in the flour markets of the world, and the MAPLE LEAF MILLING COMPANY has done much to put Canadian Flour and Canadian Milling in the rank of the world's best.

The MAPLE LEAF MILLING COMPANY's mill at Port Colborne is one of the best equipped flour mills in the British Empire, its geographical situation unequalled. On the line of all railways leading to all Canadian and American seaports, and situated on the terminus of the deep water navigation of the Great Lakes, this mill has been and is of the greatest possible service to the Imperial Government.

Maple Leaf Milling Company
LIMITED

TORONTO

CANADA

“Even in the midst of my campaigns,” said Caesar, “I have always found time to read.”

It is interesting in these days to look back at the history of other wars and see what effect they have had on the men who fought in them.

Out of armies two distinct classes of men have emerged—the successes and the failures.

It is not pleasant to dwell upon the failures; and yet the facts must be faced frankly. Every war has had its percentage of men who have seemed never quite to find themselves after the fighting was over. The call to arms took them away from the usual occupations; it threw them into a life of excitement and restlessness. After it was over they came back into civil life with no fixed purpose or plan; and almost before they realized it the world had moved on and left them on a side-track.

The months and years that follow a great war are the critical periods that make and unmake men. In these reconstruction eras weak men founder and go down. Strong men seize the opportunities offered by the world's remaking, and lay the foundations for the great successes.

What will you say five years, ten years, fifteen years hence when you look back on today?

The far-sighted men of to-day are not looking back. They are seizing opportunity. On the day when the armistice with Germany was signed more men enrolled for the Alexander Hamilton Institute's "Modern Business Course

and Service" than on any other day in the history of the Institute.

Caesar, even in the midst of his campaigns, was planning the steps in the career which made him ruler of the ancient world.

In this coming year, when the world is to be rebuilt; when the men who know will command a higher premium than ever before; when the strong will go forward and the weak will be confused and aimless—in this critical year a certain number of men will fasten their lives to the immense lifting power of the Alexander Hamilton Institute training.

Will you be one of these men? Whether you want it or not, the year 1919 will be a turning point in your life. The reconstruction period will affect every man in every walk of life, either for better or for worse. It is your privilege to decide now that it will affect you for the better.

In progressive plants and offices—in efficient selling organizations where modern methods, merit and true efficiency are valued—training in the fundamentals of business, as set forth in the Modern Business Course and Service, has been followed by over 75,000 men.

Every man, ambitious to be a bigger, better executive—every man anxious to advance himself on merit to a better position, every man and woman valuing true knowledge of the basic principles of business—needs the Modern Business Course.

The experience, findings, conclusions of thousands of successful men are in this Course.

Production and marketing problems are classified, sifted and solved. Finance, accounting and kindred fundamentals are explained. Traffic, transportation, banking, exporting, investments, merchandising, insurance, are a few of the other fundamentals covered.

The positions occupied by some of the men enrolled

13,534 presidents; 2,826 vice-presidents; 5,372 secretaries; 2,652 treasurers; 11,260 managers; 2,626 sales managers; 2,876 accountants—in fact, heads of every kind of department, executives of all ages, have enrolled for the Course and profited by the information and knowledge they have gained from it.

It is to the unquestioned advantage of every man who aims to progress—who wants to amount to more in his own or any other business—who is determined to succeed—to find out at first hand just what this Course means to him.

Get further information

Write us to-day for a *free* copy of our 112-page book, "Forging Ahead in Business". It is intensely interesting. It suggests ways and means of taking advantage of the opportunities of the hour.

Get this *free* book and learn how you can be helped, and materially so, to become a better executive, a better leader of men.

ALEXANDER HAMILTON INSTITUTE

324 ASTOR PLACE, NEW YORK CITY

C.P.R. BUILDING, TORONTO

THE
Canadian Laundry Machinery Company
LIMITED

General Office and Factory : 47-79 Sterling Rd., TORONTO

MANUFACTURERS OF

Modern Laundry Machinery and Appliances

Our wide and varied experience in equipping Institutions,
Hotels and Custom Laundries is at your service.

WRITE FOR NEW ILLUSTRATED CATALOGUE.

T. H. HANCOCK

Lumber and Millwork

1372 BLOOR ST. W.

Ask for estimate on your requirements.

TORONTO STRUCTURAL STEEL CO.

LIMITED

WESTON, ONT.



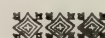
Designers, Manufacturers and Erectors

OF

STEEL STRUCTURES

OF ALL CLASSES

BUILDINGS A SPECIALTY



A LARGE STOCK OF

Beams, Columns, Channels, Angles, Plates
and other Structural Shapes always on
hand for PROMPT DELIVERY.

PHONE JUNC. 5310

DOMINION NATURAL GAS COMPANY, LIMITED

AND ASSOCIATED COMPANIES

Producers and Distributors of Natural Gas in the following cities and towns in the Province of Ontario :

HAMILTON
HAGERSVILLE
DUNDAS
DUNNVILLE
DELHI
LEAMINGTON

PARIS
TILLSONBURG
SIMCOE
KINGSVILLE
GALT
PORT ROWAN

BRANTFORD
WOODSTOCK
INGERSOLL
ST. CATHARINES
MERLIN
JARVIS

And many towns and villages between Niagara Falls and Kingsville.

Subsidiaries of:

THE CITIES SERVICE COMPANY

60 WALL STREET, NEW YORK CITY, N.Y.

GENERAL OFFICE:

842 Marine National Bank Building

- BUFFALO, N.Y.

F. M. LOWRY, *Vice-Pres. & Gen. Mgr.*

J. A. RICHIE, *Secy.-Treas.*

CANADA PERMANENT MORTGAGE CORPORATION

TORONTO STREET - - - TORONTO
Established 1855.

President :

W. G. GOODERHAM.

First Vice-President :

W. D. MATTHEWS.

Second Vice-President :

R. S. HUDSON.

Joint General Managers :

R. S. HUDSON.

JOHN MASSEY.

Assistant General Manager :

GEORGE H. SMITH.

Paid-up Capital	-	-	-	\$6,000,000.00
Reserve Fund (earned)	-	-	-	5,250,000.00
Unappropriated Profits	-	-	-	197,977.41
Capital and Surplus	-	-	-	11,447,977.41

DEPOSITS RECEIVED

in sums of one dollar and upwards, and interest allowed compounded half-yearly.

A Trustee Investment

The Bonds issued by this Corporation are a high-class security in which Executors and Trustees are authorized by law to invest Trust Funds. Enquire about them.

Under the same direction and Management is

The CANADA PERMANENT TRUST COMPANY

which accepts and carefully executes trusts of every description

R. R. Bongard

Y. S. Ryerson

Bongard, Ryerson & Co.

MEMBERS

TORONTO STOCK EXCHANGE

STOCKS AND BONDS

TORONTO GENERAL TRUSTS BUILDING

TORONTO, CANADA

Branch Office

KINGSTON, ONT.

WE OFFER
SAFE INVESTMENTS
YIELDING FROM 5½% TO 7%

IN GOVERNMENT, MUNICIPAL
AND PUBLIC UTILITY BONDS

JOHN STARK & CO.
ESTABLISHED 1870

ROYAL BANK BUILDING - TORONTO

H. H. WILLIAMS & Co.

Real Estate Agents

38 King St. East, TORONTO

Our Specialty : Central Toronto Business Properties.

Piano Character—

**THERE'S PERSONALITY IN
THE GOURLAY PIANO**

When you purchase a Gourlay Piano you become proud—enthusiastically proud of an art creation.

Only a lifetime of experience in piano craft can produce construction so sound, design so dignified, tone so resonant.

It is a personal product, made by those whose name it bears, by those who take pride in its enduring perfection,—and whose pride in their product is your safeguard.

Gourlay, Winter & Leeming, Limited

The House of Service

188 YONGE STREET, TORONTO

"Varsity" Boys in Overseas Service

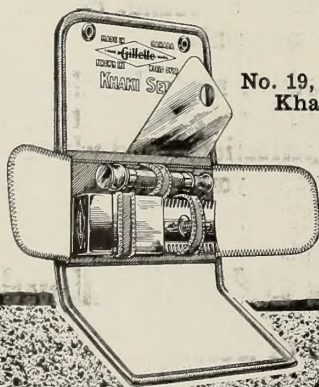
IN every Battalion, Battery or Medical Unit drawn from Canada for the great War, our "Varsity Old Boys" took a prominent part. They filled every rank, from General to Private. They performed every service, from aviator to sapper. They gave their lives for the Empire and won undying glory in every encounter.

Trained, educated, resourceful, these "Varsity" Men make the type of Canadian soldiers whose deeds astonished military Europe.

With their efficiency goes a passion for trim cleanliness. They are devotees of the razor and strong partisans of the "Made-in-Canada" Gillette. They enjoy its clean, velvety shave when they have time and toilet conveniences, and appreciate it even more when both are lacking, and no other razor could give them any sort of a decent shave.

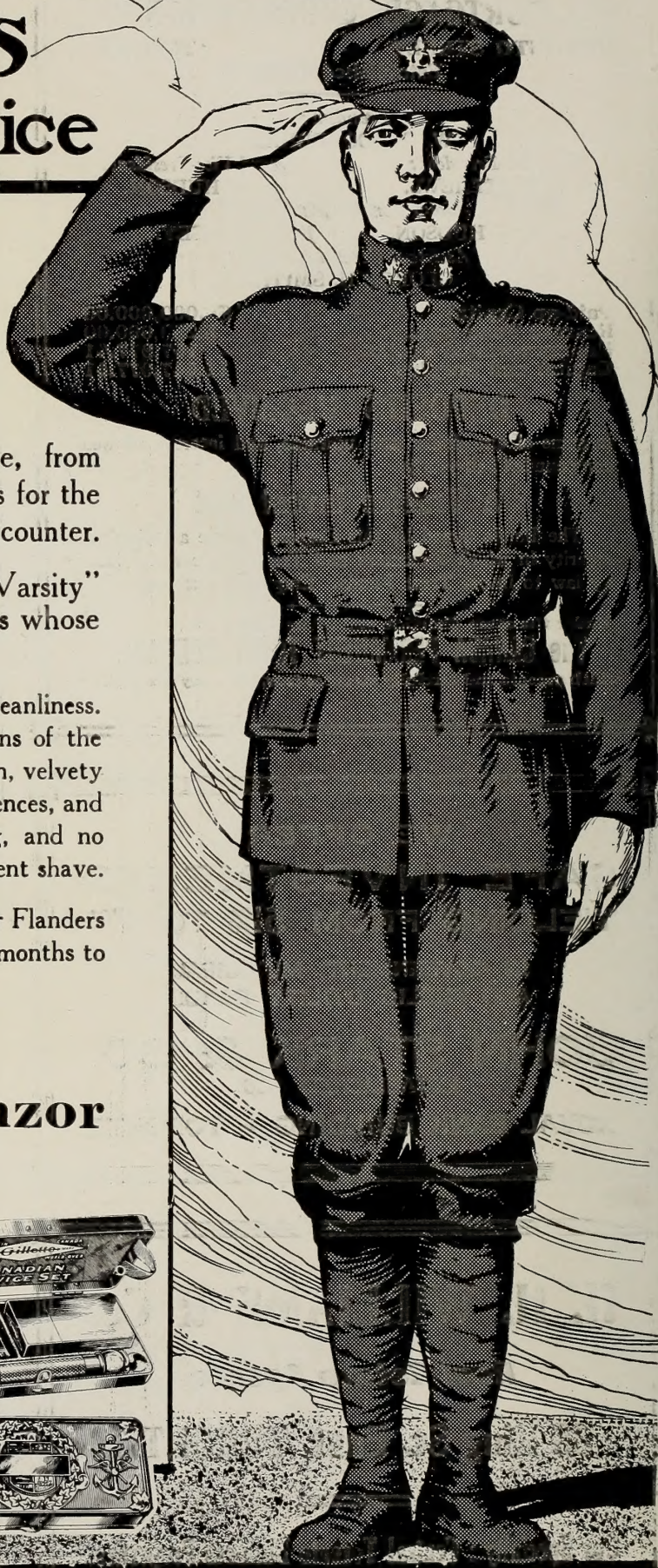
Remember! Your friend or relative in France or Flanders will need every comfort you can supply him for months to come yet.

GIVE HIM A
Gillette Safety Razor

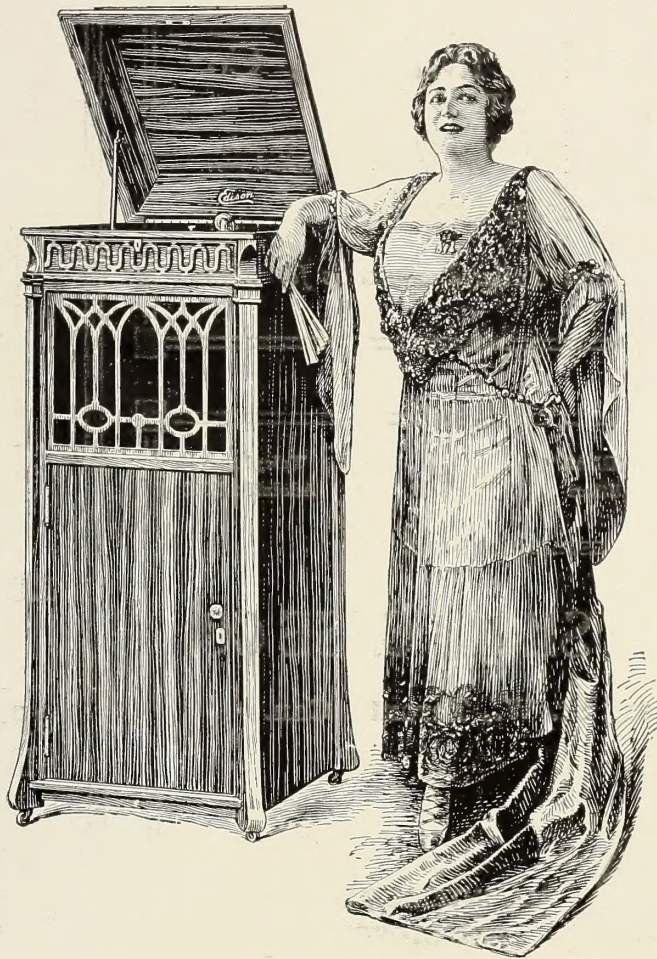


No. 19, Soft Roll
Khaki Set

No. 20, Service
Set



*This artist is proving
by direct comparison
that there is no differ-
ence between her own
voice and Edison's
"Re-creation" of it.*



The NEW EDISON

Doesn't it stand to reason that an instrument which **RE-CREATES** should be preferred to one which merely imitates? Isn't it obvious that an instrument which has successfully met the tone test should take precedence over those which are unable to sustain this searching trial?

Not once, but 1500 times has the New Edison been subjected to the test of direct comparison with the artist's living voice or actual instrumental performance. Audiences totaling more than 2,000,000 people have attended these tone tests. And invariably the verdict was the same: artist and instrument were indistinguishable.

Why should anyone purchase any other instrument after hearing the New Edison? Call and hear a demonstration at

THE WILLIAMS & SONS CO.
R.S. *MUSICAL INSTRUMENTS OF QUALITY* LIMITED.

HAMILTON
21 King St. East

OR ANY LICENSED EDISON DEALER

TORONTO
145 Yonge St.

CANADA'S BEST TAILORS TO THE TRADE

WM. H. LEISHMAN & Co.
LIMITED

68 TEMPERANCE STREET
Toronto, Canada

Makers of the Best Tailored Garments for Men.

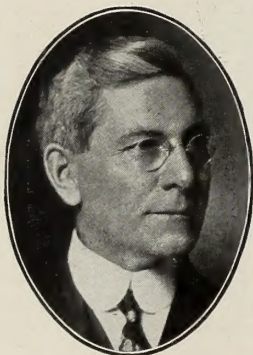
Cable Address "MERPAL"
Code A.B.C., 5th Edition

Telephone
Adelaide 5292

ESTABLISHED 1902

CANADA SHOW CASE CO.

819 King St. W., Toronto, Can.

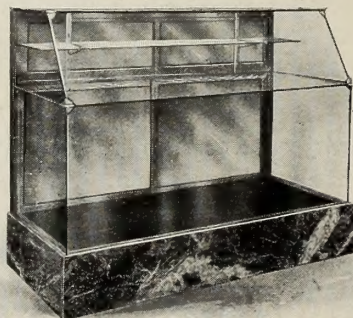


THOS. PALMER
Manager

IF OF GLASS
OR WOOD
CONSULT
PALMER

ALL INTERIOR WOODWORK
AND STORE FRONTS

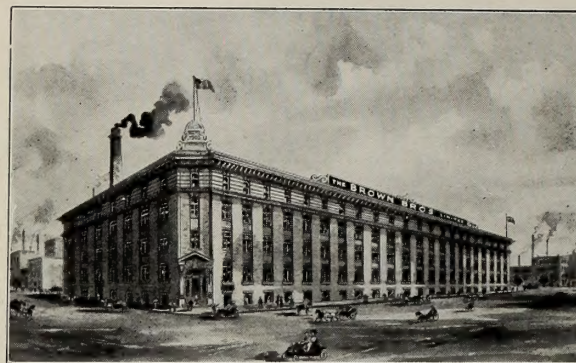
One of many designs—
"The Dinovo" No. 107



We are Canadian Agents for the Zouri Safety Setting Metal Store Fronts, which is acknowledged to be the best Metal Store Front System in America, as it provides Safety against the settling or swaying of a building, wind pressure, also careless workmanship in setting Glass. All Store Front Glass resting upon Two Murnane Self-Adjusting Setting Blocks and is proof against burglary. We also have a special feature for Awning Rolls and Awning Roll Covers, which protects your awning against wind and storm.

Do not venture to install a new Store Front without first, consulting us regarding THE ZOURI, or first, look through your own town and see how many Store Fronts have cracked Glass. We can explain why.

BROWN BROS.
LIMITED



Manufacturers of
ACCOUNT BOOKS
LOOSE LEAF Ledgers, Binders, etc.
Leather Goods, Diaries, Paper,
Stationery, Office Supplies

OFFICE and FACTORY - TORONTO
SIMCOE, PEARL and ADELAIDE STS.

Established in Toronto 70 Years

HOMESTEADS

IN THE BANNER HOME PROVINCE
OF ONTARIO

20,000,000 acres of the Finest Agriculture Land in Canada
Wait for You in the Northern Part of Ontario

Think of it! Homesteads available at 50 Cents per Acre—close to railroads—close to markets—close to civilization and attending advantages.

Land of opportunity!—you can make yourself a home within a short day's journey of Toronto.

Land lies in one of the best belts of Canada along the TEMISKAMING AND NORTHERN ONTARIO RAILWAY, which has connections with the G.T.R., C.P.R., C.N.R. and C.G.R. Railways, thus bringing the Settlers within easy reach of the profitable markets of the Continent and Europe.

Prosperous Towns, growing into Cities; in this way local markets available to the Settler for buying and selling.

You may have a happy home and a fertile farm at 50 Cents per acre in your own home Province of Ontario—why, then, go far afield for these ideal conditions?

Exhibits of the products and of the possibilities of production of New Ontario's Land have been shown at Canada's National and other Expositions, so that it is now known as Canada's land of production.

Not only land of agriculture, but embraces large and rich mineral belts, from which annually, millions of dollars of gold and silver are mined.

Learn More of This Land of Plenty by sending for Free Booklets to Geo. W. Lee, Commissioner and General Agent, North Bay, Ont.

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION

Executive Offices—56 Church Street, Toronto, Ont.